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THE  
ANNALS  
OF  
INDIAN ADMINISTRATION

TEA PLANTATIONS IN THE PUNJAB.

*Punjab Select As., Vol. IV., No. 2.*

On the 6th July, 1858, Mr. H. C. Watts of 62, Moorgate Street, London, addressed the Secretary to the Court of Directors, asking the Court to surrender to a Company of gentlemen associated with himself, their several Himalayan tea nurseries, implements and establishments, on such conditions as may be considered absolutely essential to the success of the working. The object which the Government of India had in view in the establishment of these nurseries was declared by the late Chairman of the Court to be "the trying experiments for the sake of the settlers." These experiments have succeeded, and can be effectually and successfully continued only by such an outlay of capital as a large public company can supply. Mr. Watts' Company expressed itself as prepared, not only to make gratuitous distributions of seed, as is now done by the Government, but to promote the extension of cultivation among the zemindars and smaller landholders by a system of money advances, on the principle adopted by the indigo planters in Bengal, which the Government are precluded from doing,—and by the establishment of manufactories in convenient localities for the manipulation and preparation of tea from the raw leaves, which cannot be safely entrusted to native growers. Though the success of the tea growing experiments has been an established fact for the last twenty years; yet, up to this time, not more than half a dozen Europeans, and about as many Natives, have engaged in the cultivation, which does not extend beyond a few hundred acres. This is ascribed to want of capital. In six years after the dis-

covery of the plant growing indigenous in Assam a Company was formed and its operations have extended to almost national importance. The Government made over to that Company a portion, not exceeding two-thirds, of their plantations, with the establishment employed upon them, under special conditions. Mr. Watts asked the Court "to deal with this matter without farther reference to the local authorities."

In reply, the Court said they were anxious to give their most efficient aid to any well considered project for carrying such an undertaking into operation. But, as various applications had been made to the local authorities by both Companies and private individuals for the transfer to them of the tea plantations, the Court referred Mr. Watts and his Company to the Indian Government, promising to confirm any reasonable arrangements which might be made by the Local Government for carrying out an object of great national importance.

On the 11th June, 1859, the Secretary to the Punjab Government furnished the Government of India with an account of the cultivation and manufacture of tea in the Himalayan Provinces under the jurisdiction of the Punjab.

Though experience has shewn that at a certain elevation tea may be grown in the hill tracts of the Simla, Kangra, and Huzara districts, and it may be inferred that the Cashmere territory which lies between the two last, is equally adapted for the culture, yet the Kangra district is the only one where sufficient Government land is available for the establishment of a Joint Stock Company. The area in the Simla district is small, and the character of the people in Huzara is unfavourable to any experiment on a large scale.

Seven years ago tea was first planted near the town of Kangra itself. There, however, the trial was not successful. Further experiments were then made at Nagrota, in the Kangra valley, about 8 miles from the town, and at Bhawârna. At both these places the plant flourished. Close to Bhawârna, there was a tract of waste land, situated about N. latitude 32 degrees, and longitude 76 degrees 30 minutes, taking the name of Holta from a neighbouring village; and at least 4,000 or 5,000 acres in extent, which, being left uncultivated from superstitious motives by the natives, had been, at the time of the revenue settlement, reserved as the property of Government. It was soon found that tea thrives as well there as at Bhawârna. Under the auspices of Lord Dalhousie, a Government plantation, under the superintendence of Mr. Jameson, was laid out. Year by year the cultivation was extended, until it now occupies 800 acres—bearing some five millions of plants. It is estimated that

the produce of this year will amount to lbs. 28,000 of excellent tea, valued at rupees 52,000, or £5,200; and that, when in full bearing, the yield will increase to so large an amount as 1,50,000 Rs. The expenses are computed at rupees 16,000. Besides this vast quantities of seeds and seedlings are distributed *gratis* to the native landholders of the district. At Dhunnsala, 20 miles off, there is a smaller factory. Chinese, specially hired, conduct the manufacture and have trained several natives. The greater part of the tea produced is made over to the Commissariat department. Of the Holta area about 1,000 acres were conditionally granted to Mr. Atherton of the Bengal Civil Service, but the rest is absolutely at Government disposal. The capital of a Joint Stock Company might be invested in this land, with every prospect of success.

But would the transfer be detrimental to Government? The original intention of the State has been fulfilled. The experiment was never undertaken with any view of profit. It has been proved that the climate and soil of the hills are congenial to the tea plant; that its manufacture can be carried on without difficulty; that the quality of the tea is good; that the natives of the vicinity are willing to cultivate, and able to manipulate it; that labor is abundant, means of transport available, and a sufficient market certainly open. The Lieutenant Governor of Punjab considers that the time has come when the Government may advantageously commit the management of the enterprise to the mercantile interest on certain conditions: -

*Firstly*.—The stock and block of the Government plantations to be taken at a valuation, and a certain number of shares in the joint stock to be reserved for parties in India who have previously made similar offers to those of the Company.

*Secondly*.—The guarantee made by Government to zemindars cultivating tea to be maintained; viz., that they shall receive at the rate of 8 rupees per maund, for raw leaves, for a term of years.

*Thirdly*.—That the Company shall engage to pay at the above rates, for a period of six years, to those zemindars to whom, during the past and present seasons, seeds have been distributed.

*Fourthly*.—That the Company shall distribute, *gratis*, 100 maunds of seeds yearly, for the purpose of encouraging the cultivation among the zemindars.

*Fifthly*.—Where no advances of money have been paid to a zemindar, it shall be optional to him to discontinue the cultivation of tea, at his discretion. Where advances have been made, he is of course bound to repay them in raw leaves.

*Sixthly*.—The Company should guarantee to the Chinese ma-

nufacturers the same terms on which they now work under Government.

*Seventhly.*—Land must only be rented or purchased from natives with their own consent.

The best plan for a Company will be to have but little direct concern with the cultivation, and to confine themselves to advancing money to landholders—whilst they devote their principal attention to the manufacture of the tea leaves grown by the aid of their capital. On this plan, willing labor will be easily procured, and the growth of tea indefinitely extended. The Company must choose such agents as will conciliate the simple people with whom they have to do, by the integrity both of their private and official intercourse. Mr. Jameson, Superintendent of the Botanic Gardens, N. W. Provinces, supports the views of the Punjab Government. He says, the out-turn of teas from the Kangra Plantations was in 1857 13,190 lbs., and is estimated for 1858 at 26,000 lbs. In addition 270 maunds of tea seeds and two lakhs of seedlings were distributed *gratis* to zemindars. These results were obtained at an expense of not more than 16,000 rupees. As the value of teas in the N. W. Provinces is Rs. 2 a pound, the value of the Punjab out-turn is Rs. 52,000, shewing a profit of Rs. 36,000. Moreover, there are upwards of 800 acres of land under cultivation, containing upwards of five millions of plants, the produce from which will annually greatly increase, and may be estimated next season at 40,000 lbs., and when in full bearing 150,000 lbs. Labour is abundant and cheap, and the field of operations is so wide as to be available for large capital.

Mr. D. F. McLeod, the Financial Commissioner for the Punjab, reports on the Tea Plantations there. Mr. Atherton's grant was conditional on his retiring from the service. The factory established at Dhurmsala was for the encouragement of Miān Tēk Singh, a Rajpoot of royal descent, who established a plantation of about 100 acres in the vicinity. In 1859, this nursery yielded some 20 or 25 maunds of leaves. Others are following his example. But it is not true that land for the cultivation of tea may be procured in almost unlimited quantity, and at the most moderate rate in the Punjab. When Mr. Barnes settled the Kangra district, he made no reservation of the Government right to superfluous waste lands, although the settlement was not completed when the Board on 1st March 1852 declared all such lands the property of the State. This omission was not noticed in Mr. Barnes' report, even by Sir John Lawrence who was then a member of the Board and familiar with Kangra. As the case now stands, the local autho-

rities consider their hands to be entirely tied in the matter of complying with applications for waste land, as the application even of the provisions of Section 8 of Regulation VII. of 1822, by which superfluous waste may be assigned to other parties than the original proprietors, on payment of a proprietary percentage or fee, is a process which should properly be resorted to at the time of settlement only. Sir John Lawrence, before his departure, was of opinion that if a handsome percentage on the assessment were allowed to the proprietors, the allotment to other parties of superfluous waste would in his opinion, be admissible and advantageous.

Mr. McLeod and Major Lako believe that the people of the hills are as yet unconscious of any proprietary title to unappropriated waste; and that whatever title they may now in fact possess, has been created by ourselves at the time of settlement. An authoritative enunciation of the course to be pursued is thus requisite before the local authorities can entertain applications for land. Mr. McLeod recommends that some discretion be allowed to them; that they be authorized to entertain applications, and to dispose of them on their merits, submitting propositions for grants only where they are convinced, that it will be to the advantage of all parties that the grant be made, allowing a proprietary fee when the village owners advance a claim, and the settlement record of the village bears them out in it, but refraining from the authoritative suggestion of such claims where not advanced or established by the settlement record. The whole waste of the district is estimated at 41,57,582 acres, but this is probably greatly below the truth. Not much less than a half will be found capable of bearing tea plantations with profit. The following tabular statement gives details regarding a few selected villages:—

Name of Tehsil or Per-gunnah.	No. of Tuppahs.	No. of Villages	AREA IN ACRES.					
			Culti-vated.	Recently thrown out of	Rent-free.	Cultu-rable waste.	Barren.	Total.
Kangra, ...	12	9,289	1,429	2,331	1,600	1,71,669	1,89,318	
Nadon, ...	12	45,553	.....	7,563	6,261	1,08,076	1,67,147	
Nürpür, ...	5	5,333	1,878	2,827	....	38,096	48,131	
Harripür, ...	3	7,526	257	13,109	....	50,945	72,137	
Kullu, ...	3	1,189	....	125	....	58,791	60,105	
Total, . . .	35	68,890	3,564	26,255	10,861	1,27,571	5,37,111	

If the Company heartily carry out their plan of making advances to cultivators who will consent to raise tea, they will rapidly extend their operations and be in a great measure independent of special grants of land save for the erection of buildings. The more wealthy and enterprising, however, of the native tea growers, judging from the wishes already expressed by them, will probably desire to manufacture for themselves, as being much more profitable than the sale of raw leaves.

The Government of India, in a letter dated 3rd October, 1859, object to the *first, fifth, sixth and seventh* conditions, and direct the North West Government to call on Mr. Jameson for a descriptive statement of each of the Government tea plantations and factories within the jurisdiction of the North Western Provinces to be embodied in a public advertisement, stating at the same time his opinion as to the upset price which should be attached to each. At least one of the Plantations is to be retained in the hands of Government, that the gratis supply of seeds and plants may be continued for some time longer. An injurious monopoly will be prevented if such an extent of fresh land only be made over to each purchaser, in addition to that already under cultivation, as may seem to the local Government to be expedient, with reference to the ascertained means of the Company, or individual, purchasing, and if additional

waste land be given under some reasonable conditions as to clearance. Waste land not at once taken up will remain, as at present, available for any persons who may desire to embark in the cultivation of tea. As there is room for many Companies the factories should be sold in several small lots.

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## THE INSALUBRITY OF PESHAWUR.

*Punjab Selections, Vol. IV., No. 2.*

Mr. W. Purdon, the Civil Engineer at Pind Dadan Khan, on the 23rd January, 1858 forwarded a Memo. to the Punjab Government on the causes of the malaria of the Peshawur valley, with recommendations as to the remedial measures which should be adopted.

The low elevation of the valley is not a cause of its unhealthiness. Rawul Pindee, very little higher, is remarkably healthy. When European troops were first stationed at Peshawur they were very healthy, but ever since mortality has been on the increase. Irrigation and cultivation, without which it would be a barren plain, have given it all the noxious elements of a marsh. The Europeans have created malaria by surrounding their houses with dense vegetation. The irrigation of the gardens is carried on also, by a net-work of open drains, which generate disease. The evil is increased by the fact that the moist soil containing putrifying vegetable matter is *twice* broken up during the year, and that the water contains dissolved vegetable matter. None of these causes are trifling; most of them might be corrected or destroyed. To remedy this state of things, all irrigation in mud drains should be prohibited, and stone channels substituted where required. The branch of the Bara river, which passes through the town, should be made to run in a stone channel, for a certain distance, in the vicinity of cantonments; all irrigation should be put a stop to if possible for a distance of not less than three miles from cantonments; for it has been proved experimentally in Italy, that marshy lands can influence to disease a locality 3 miles distant from them. Further, the barracks for Europeans should all be two-storied, the upper story for sleeping in,—for it is found to be a tolerably well established fact, that malaria is comparatively *inert* 16 feet from the ground, while it is well known that night is the time noxious vapours are most powerful, and the human frame most susceptible of disease.

The political importance of maintaining a large European force at Peshawur, is sufficient to outweigh the immediate loss of revenue, if these suggestions were carried out. Rawal Pindee has good natural drainage, and it may be presumed, will therefore be considerably increased as a European Station. A good tramway should be laid down between it and Peshawur over the present line of road. It would thus be within 9 hours of Peshawur, and the troops might be relieved frequently. Between Pindee and Jhelum also a tramway should be laid down, to be worked by horses at the rate of 10 miles an hour. As the road is not suitable for locomotives a good system of cheap tramways, and not high-speed railways, will best meet the requirements of the Punjab. The country, moreover, possesses great natural advantages for water communication. Its streams are navigable throughout the year, and should be opened up by cheap steam navigation. A beginning should be made with the Jhelum, as the obstacles in its channel are removable at a very small cost. Steamers might run at all seasons up to Jhelum, whence, with a tramway to Peshawur, the communication with that important post would be placed upon a very complete footing. The cost of a complete tramway from Jhelum to Peshawur is estimated at 10½ lakhs of rupees, or little more than has been spent on the small station of Nowshera.

The Chief Commissioner approves of some of these suggestions. A large portion of the gardens and trees should be cleared away; the Barn river should be diverted from cantonments; and perhaps all irrigation within three miles should be stopped. Double-storied barracks are required, but the expenditure would be too large. Gardens, except one for vegetables and one for general amusement, should not be allowed at Nowshera. There is no prospect of a tramway being sanctioned between Jhelum and Peshawur, and Major Robertson estimated such a way at 30 lakhs of rupees.

Captain H. R. James, the Commissioner of the Peshawur Division, reports against the correctness of Mr. Purdon's facts and theories. He formed his opinion during a visit of a few days; the bleakest parts of the valley are as unhealthy as the others; there are scarcely any trees in the vicinity of the barracks; and the officers' gardens require much pruning and extension. Peshawur was healthy in 1858 in spite of both irrigation and vegetation, and this was probably owing to the fact that no rain fell till very late in the year. All that should be done is to maintain a careful supervision of conservancy arrangements, and to knock down one-third of the houses where they are too crowded.

Major General Cotton, Commanding the Peshawur Division, agrees with Captain James. There is no part of the valley free from malarious fever; to remedy it everything is done that can be done. As the Peshawur fever clings to its victim till he has re-crossed the river, and frequent attacks produce organic diseases, the troops should be frequently relieved.

Mr. C. Mackinnon, the Inspector General of Hospitals, is of opinion that Mr. Purdon's conclusions are drawn from insufficient data, and are so sweeping as to be erroneous. The site of the Peshawur cantonment was selected for military reasons in spite of the opposition of Dr. Dempster. The extension swamp to the north should be drained. The irrigation canals should be adjusted, so as not to interfere with the natural drainage. The trees round the officers' bungalows are sources of health, acting as a protection against the malaria generated without cantonments. The suggestion to put the troops in double-storied barracks is a good one, but it would not secure the troops from malaria. The Fort is 40 or 50 feet above the level of the valley, yet its residents do not escape fever. It is doubtful if the Peshawur endemic fever will ever be eradicated. But Mr. Purdon deserves credit for having made his suggestions.

## CRIMINAL JUSTICE IN THE MADRAS PRESIDENCY.

1858.

This annual return consists of a series of tables submitted by the Judges of the Foujdaree Adawlut, in illustration of the administration of criminal justice in each zillah.

The *Village Police* investigated 26,012 cases, against 14,821 in 1857. Of these, 8,430 were convicted and punished, the number in the previous year being 6,826. To the higher authorities 8,212 were referred. The *District Police* took up 2,35,274 cases, of which 1,06,944 were acquitted after investigation, 52,134 convicted and punished, and 12,449 referred to higher courts. 3,186 died, escaped or were otherwise disposed of. The *Sub-ordinate Judges, Principal Sudder Ameens and Sudder Ameens* acquitted 3,397 cases, convicted 2,046, and referred 3,268 to Session Judges. The *Magistrates, Joint Magistrates and Assistant Magistrates* acquitted 4,713, convicted 3,958, committed to subordinate criminal courts 767, discharged without trial 362, and

otherwise disposed of 1,214, leaving 270 under trial at the close of the year. The *Session Judges* discharged 14 without trial, acquitted 2,168, convicted 1,725, referred to Foujdaree Court 339, remanded 62 to the lower courts, and otherwise disposed of 308, leaving 258 under trial at the close of the year. The *Foujdaree Adawlut* released 167 unconditionally and 3 on security, convicted 261, and remanded 7, leaving 11 under trial at the close of the year. The sentences passed on those convicted were as follows — 53 were imprisoned above 6 and not exceeding 7 years, 54 above 13 and not exceeding 14 years, and 2 for life: 41 were transported and 57 suffered death:—

**AVERAGE DURATION OF THE CASES REFERRED TO THE FOUDAREE  
ADAWLUT.**

Years.	From ap- prehension/ment to committal.	From com- mittal to reference.	From trans- ference to receipt.	From re- ceipt of re- ference to sentence.	Total from apprehen- sion.
	Days.	Days.	Days.	Days.	Days.
1854	21	71	9	5	106
1855	22	50		5	84
1856	20	53		8	88
1857	21	55		10	93
1858	16	43		6	72

*Offences against the person.* Of 902 apprehended for murder, 611 were acquitted, and 121 discharged on security, 42 suffered death, 17 were transported, and 32 were imprisoned for various periods; 207 were charged with homicide and 158 acquitted; 1,387 with assault with wounding, and 850 acquitted; 801 with rape and 93 acquitted; 102 for abortion and 98 acquitted; 118 with torture and 95 acquitted; 14,043 with affray and 1,971 acquitted; 1,78,503 with petty assault and 64,708 acquitted.

*Offences against property committed with violence.* The following are the main points:—

<i>Offence.</i>	<i>Cases.</i>	<i>Acquitted.</i>
Dacoity,	... 4,934	3,751
Highway Robbery, ...	1,886	1,277
Theft and Burglary,	166	136
Affray,	... 561	365

*Offences against property without violence.*

<i>Offence.</i>	<i>Cases.</i>	<i>Acquitted.</i>
Burglary,	5,572	4,437
Theft, ...	19,694	10,926
Receiving stolen goods,	1,001	939
Fraud, ...	878	1,297

*Miscellaneous Offences against Property.*

<i>Offence.</i>	<i>Cases.</i>	<i>Acquitted.</i>
Arson, ...	579	510
Cattle killing and maiming, ...	1,124	932
Damaging Crops, ...	835	229

*Forgery and Offences against the Currency.*

<i>Offence.</i>	<i>Cases.</i>	<i>Acquitted.</i>
Forgery, ...	452	399
Counterfeiting Coin, ...	20	12
Having do., ...	88	66

*Miscellaneous.*

<i>Offence.</i>	<i>Cases.</i>	<i>Acquitted.</i>
Prison-breaking, ...	196	53
Perjury, ...	84	40
Riot, Sedition, &c. ...	133	56
Felonies, Misdemeanours and other offences,	13,692	5,377

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**VACCINATION IN THE AGRA DIVISION,****1858-59.**

The Vaccine operations were commenced on 3rd November, 1858. Fresh lymph received in capillary tubes from Scotland was used. By means of 28 vaccinators, three superintendents and three vaccinators from Rohilkund, the Zillahs of Agra, Muttra, Allygurh and Mynpoory were as thoroughly visited as that number of operators allowed of. The staff was too small

to visit Etawah and Furruckabad. Assistant Surgeon Christison, the Superintendent, considers the returns to be accurate :—

MONTHS.	<i>Successful.</i>	<i>Unsuccessful.</i>	<i>Doubtful.</i>	<i>TOTAL.</i>
November 1858, ...	1,056	434	304	1,794
December 1858, ...	8,620	1,806	1,299	11,725
January 1859, ...	16,028	2,652	2,778	21,458
February 1859, ...	15,509	2,916	2,591	21,016
March 1859, ...	28,943	6,258	12,690	47,891
GRAND TOTAL, ...	73,024	15,091	20,681	1,08,796

The general result is very satisfactory, and the number of children vaccinated is nearly double that of 1856-57, when operations were carried on with a similar number of Vaccinators. The people offer many obstacles to Vaccination, such as that the Vaccinators are searching for the incarnation of Seetla, (to be known by the milk appearing in the wound instead of blood;) that the children are being marked that they may be recognised when older for some purpose unknown; that the Deity " Seetla" will be offended by the interference with his special province of watching over Small-pox. The work progressed least in large cities, where it was difficult to obtain access to the people, and most in villages where the zemindars were influential and saw the advantages to be derived. Much depended also on the influence of the Magistrates.

The large amount of doubtful and unsuccessful cases is owing to the facts that two-thirds of the Vaccinators were inexperienced, that, the children being generally destitute of clothing, the skin is tough and thick, that the parents often rub away the virus or apply native medicines, and that the children themselves constantly scratch the parts. The people believe that the result is to be obtained simply by inserting the lancet. The ordinary bleeding lancet was employed, but by using an instrument of needles for scratching in the virus, which will

hereafter be used, 80 per cent. of successful cases can be obtained. The ages of the persons vaccinated were between infancy and five years, almost all persons above that age being marked with Small-pox.

The following represents the proportion in which the different castes and trades were vaccinated :

<i>Caste or Occupation.</i>	<i>Number.</i>	<i>Caste or Occupation.</i>	<i>Number.</i>
Chumar,	21,798	Sonar,	738
Brahmin,	10,736	Kissan,	696
Thakoor,	8,410	Durzec,	683
Colee,	7,210	Bhat,	662
Mahomedan,	6,222	Dheemur,	601
Jat,	5,920	Kayit,	586
Bunya,	5,681	Mallee,	586
Kachee,	4,747	Mullah,	555
Gudurrya,	4,216	Dhoonya,	519
Aheer,	3,883	Bhurjee,	492
Lodha,	3,760	Golaspoorub,	295
Kahar,	2,257	Cheepce,	254
Nayee,	2,060	Meerasec,	195
Barhaee,	1,889	Kunjur,	138
Komhar,	1,872	Tumbolee,	122
Lohar,	1,517	Mehter,	79
Dhobee,	1,107	Nadol,	67
Khuteek,	1,313	Ahairya,	56
Rajpoot,	1,308	Christian,	42
Tailee,	1,243	Hindoos, whose caste is not re-	1,229
Goojur,	1,091	corded.	
Jogee,	954		
Dhanuk,	740		
<b>TOTAL,</b>	...	...	<b>1,08,796</b>

The large proportion of Chumars is owing partly to their being numerous in most of the villages, and very much to their be-

ing of the humblest caste, and more submissive than others to the operations of the Vaccinators. Brahmins and Thakoors shew together the number of 19,146, which indicates that they have, in very fair proportion, accepted the benefit. The classes next in order of frequency, correspond very much to their relative numbers in the villages. Mahomedans are the only class who occasionally come forward voluntarily for vaccination, and they are generally most free from prejudice against it. The number of native Christians represents those of Agra city. Many of them are as averse to, and as ignorant about vaccination, as any of the Hindoo castes.

The loss of registers during the mutinies makes it difficult to trace any effect from the vaccine operations of past years. Dr. Christison is of opinion that effective vaccination can be alone maintained by the system in the Agra Division, which is essentially one of importunity or moral force, towards the people who only submit passively.

### DACOITY IN BENGAL,

1856-57 and 1857-58.

*Bengal Records, No. XXXI.*

In 1856-57 Captain Keighly officiated as Commissioner of Dacoity. The returns shew a decrease in cases of 44 or 20 per cent. throughout the districts, as compared with the previous year

		1856	1857
24-Pergunnahs	...	3	0
Baraset	...	5	5
Howrah	...	3	3
Hooghly	...	41	30
Burdwan	...	12	19
Nuddea	...	8	15
Jessore	...	62	31
Moorshedabad	...	65	50
Midnapore	...	20	22
		<hr/> 219	<hr/> 175

The increase in Burdwan is ascribed to the inefficiency of the police. The increase in Midnapore is accounted for by the vicinity of the Mohur-Bhunj territory which affords ready shelter to dacoits. But Captain Keighly remarks;—"wretched as the Police is allowed to be by every one, it is difficult to know what can be done for a people who will do nothing for themselves. It is a bold step for a man (a Bengalee himself) to attack a house in a Village (small though it may be) with only 3 or 4 followers at the most, and yet this is constantly occurring and with impunity." During the year 26 prisoners were transported for life, 2 acquitted by the Sessions, 24 were before the Sessions on the 1st January, and 49 in the Deputy Magistrate's Hajut; 17 approvers were made during the year. In the higher Courts only 15 were acquitted against 126 convicted, a result attributed to the presence of Judges in the Higher Courts favourable to "the system." The results of those tried are as follows:—

	Trans-ported.	Term of Imprison-ment.	Sentenced as bad charac-ters.	Acquitted by Ses-sions.	Acquitted by Niza-mut.
Commissioner for the Suppression } of Dacoity.	28	13 *	9	4	0
Chunderseker Roy	51	7 †	0	2	6
Jessore Office ...	25	0	0	2	0
Moorshedabad } Office ...	22	0	0	1	0
Total ..	126	20	9	9	6

\* Of this number, 3 released on appeal to the Sudder.

† Of this number 2 ditto ditto ditto.

Out of 170 prisoners 159 were punished. The old proportion was fully obtained, and when to this is added the result of the Midnapore trials, 157 having been punished out of 162 prisoners; out of 332 prisoners brought to trial, but 25 were acquitted, and of the number punished, 250 were transported for life.

Six approvers forfeited their conditional pardon, and three absconded. Of these all but one were transported for sedition or seditious language. A Pundit was engaged for the education of approvers' sons. There were 43 pupils, of whom 26 were the sons of approvers.

In 1857-58, Mr. T. E. Ravenshaw was Dacoity Commissioner. In the 24-Pergunnahs there was only one case; in Baraset there were none; in Howrah one; in Hooghly 27; in Burdwan 20 or an increase of two over the whole division, but in Thannahs where the Commission did not work; in Nuddea 15; in Jessor 15; in Moorshedabad 29; in Purnia none; in Furreedpore 6; in Midnapore 15. "On the whole, during the year 1858, 499 cases of gang robbery occurred in the Districts of Bengal and Behar in which the almost incredible amount of Rupees 4,62,136-8-11 was plundered, the small sum of Rupees 7,290-2-9 was recovered by the Police, and of 2,901 dacoits brought to trial before District Magistrates, were committed for trial to the Sessions Court, in which only 667 convictions were obtained. These figures show the *utter inability* of the ordinary Courts to cope with the evil." Dacoity increased by 103 cases during the year. Of these 35 occurred in Behar, and is accounted for by the mutinies and the consequent disturbed state of the country. An increase of forty-six cases is shown in the Districts of Barrackpore and Bograh. Notwithstanding the general increase, a decrease of nineteen and seventeen cases occurred in Bankura and Rungpore. The details are given in the following table :—

COMMISSIONERS OR DEPUTY MAGISTRATE'S OFFICE.	SESSIONS JUDGES' COURT.	SUDEE NIZAMUT COURT.	REMARKS.												
			REFERRED TO SESSIONS.			REFERRED TO NIZAMUT.			REFERRED TO DISTRICTS.			REFERRED TO OTHER COURTS.			
OFFICER AND TOTAL NUMBER OF PRI- SONERS.			For 1857	" 1858	" 1859	For 1857	" 1858	" 1859	For 1857	" 1858	" 1859	For 1857	" 1858	" 1859	
Dacoity Commissioner	for 1857 9 " 1858 137	146 101	3 19 1	0 1	13 5	For 1857 7 " 1858 101	108 61	3 10 4	0 0 0	0 30	0 30	For 1857 19 " 1858 61	59 12	0 7 0	2 * Of these, 5 men released on appeal to the Sudder Court.
Baboo Chun	for 1857 5 " 1858 115	12 101	5 21 0	0 0	0 0	For 1857 9 " 1858 101	94 61	5 21	0 0 0	0 30	0 30	For 1857 12 " 1858 67	57 17	0 3 1	10 + Of these, 4 men released do.
Deesekur Roy	for 1857 3 " 1858 115	12 101	5 21 0	0 0	0 0	For 1857 9 " 1858 101	97 113	67 0 12	2 0 0	0 0 0	0 32	For 1857 19 " 1858 61	57 8	0 3 1	10 + Of these, 4 men released do.
Deputy Magistrate, Hoog- tura															
Baboo Henn	for 1857 5 " 1858 111	116 92	1 1 1	0 0	0 18	For 1857 2 " 1858 102	94 61	5 21	0 0 0	0 0 0	0 21	For 1857 2 " 1858 79	57 17	0 5 0	6 + Of these, 5 men released on ditto.
Chunder Kerr	for 1857 5 " 1858 111	116 92	1 1 1	0 0	0 18	For 1857 2 " 1858 102	94 61	5 21	0 0 0	0 0 0	0 21	For 1857 2 " 1858 79	57 17	0 5 0	6 + Of these, 5 men released on ditto.
Deputy Magis- trate at Jessore															
Captain Bod- dam, Assistant Com- missioner, at	for 1857 71 " 1858 116	196 107	0 36 0	0 0 0	2 51	For 1857 71 " 1858 107	131 87	1 9 2	0 0 0	0 3 29	0 3 29	For 1857 11 " 1858 79	67 61	0 1 0	9 11 \$ Of these, 5 men released on ditto.
Deputy Com- missioner, at Madrasore															
Total ..	765 541	11 81 7 2 4	15 101	533 357 207 11 0 0	0 0 0	3 122	368 251 35 0 38	1 0 40							

Mr. Ravenshaw complains that out of 388 prisoners tried by the Sessions Judge and recommended by him for a sentence of transportation for life, 55 were altogether acquitted, and on 38 a modified sentence was passed. Out of 38 prisoners actually convicted and sentenced by the Sessions Judge, 19 were acquitted on appeal to the Sudder Court. That is, in cases in which the Sessions Judge was competent to pass sentence, his judgment was held to have been as often right as wrong, and in referred cases, the Sessions Judge had recommended the conviction of one innocent man in every seven, and of the remainder rather more than one decision in every eight required modification. Yet, not one commitment was condemned as made on insufficient grounds. There is an urgent necessity for the establishment of a special tribunal for the trial of dacoits. The ordinary courts are unable to cope with the evil.

The conduct of approvers was good. There were 92 approvers resident with their families on the premises at Hooghly at the close of the year; 5 approvers were transported during the year for misconduct, and 5 absconded. From the high price of food the 2 annas a day allowed them was not sufficient to maintain those with families. They were encouraged to work at various trades, and of the whole only 10 or 12 were disinclined. There was not one instance of the abuse of confidence placed in an approver. At Midnapore there were on the 31st December 97 Dacoit, Keechuk and Thug approvers; at Jessore 33 and at Moorshedabad 23. The Guard at Hooghly, Jessore and Moorshedabad consisted of 150 Nujeeps, 1 European Sergeant, 1 Jemadar and 11 Duffadars. At Midnapore the Guard numbered 70 men, who were also employed in tracing Thugs and escorting prisoners. The School flourished. There were 21 approvers' children under instruction, and 49 children from the immediate neighbourhood. A second schoolmaster was appointed.

The Lieutenant Governor observes "with great satisfaction the increased and very remarkable results presented by the Returns." He records his full approbation of Mr. Ravenshaw's ability and energy, extending his authority and that of his Assistants.

## COMMERCE AND SHIPPING OF RANGOON AND BASSEIN.

1858-59.

*Rangoon.*—The total value of Imports from Ports not in Ben-

gal into Rangoon for the official year was Rs. 28,11,899-3-9 yielding a duty of Rs. 1,74,047-0-53. The total value of Exports to ports not subject to the Bengal Presidency was Rs. 31,51,854-3-4 on which a gross duty of Rs. 96,455-9-1 $\frac{1}{2}$  was levied. The value of free imports from ports not in Bengal was Rs. 15,60,794-8-11; the value of similar free exports Rs. 10,73,493-12-10; and of free imports re-exported Rs. 55,980-1-6.

The total number of ships that arrived at Rangoon from external and home ports was 227 with a tonnage of 9,96,432 $\frac{1}{2}$ . Of these, 221 were square rigged, 5 native craft under British colours and one under Chinese colours. The number of departures was 273 with a tonnage of 1,12,114. Of these 252 were square rigged, 13 native under British colours, 6 under Chinese colours, and 2 under Burmese colours.

*Bassein.*—As in Rangoon, the Returns are applicable only to ports not subject to the Bengal Presidency. The Imports were of the value of Rs. 88,356-5-7, and the duty levied Rs. 13,485-12-11. The exports were Rs. 14,04,224-14-3 and the duty levied 38,519-11-6. The free imports were Rs. 8,29,208-0-11 the free exports by sea 1,29,211-2-0, and the imports re-exported none. 80 ships with a tonnage of 25,703 arrived, of which 36 were native. 144 ships with a tonnage of 33,008 departed, of which 87 were native.

## TRADE OF SIND.

1858-59.

### I. EXTERNAL TRADE.

The Returns shew a total increase in the movement of sea-borne trade of upwards of 42 $\frac{1}{2}$  Lakhs of Rupees (£450,000) or more than 19 $\frac{1}{2}$  per cent. on the year previous :—

Year.	Imports.	Exports.	Total.
1858-59	1,54,06,000	1,04,42,000	2,58,48,000
1857-58	1,08,11,000	1,07,81,000	2,15,92,000

The steady increase of the trade from the date of the conquest of Sind is seen in the following table:—

Year.	Imports.	Exports.	Total.
1843-44	1,21,150	1,010	1,22,160
1844-45	2,17,700	9,300	2,27,000
1845-46	3,12,900	40,500	3,53,400
1846-47	2,93,400	49,300	3,42,700
1847-48	2,87,872	1,54,730	4,42,600
1848-49	3,44,715	1,07,133	4,51,849
1849-50	4,19,352	1,14,378	5,33,731
1850-51	4,25,831	1,96,461	6,22,293
1851-52	4,89,220	2,44,122	7,33,343
1852-53	5,35,690	3,76,337	8,00,000
1853-54	5,08,793	3,76,310	8,85,103
1854-55	5,75,196	3,46,893	9,22,089
1855-56	6,29,813	6,04,440	12,34,253
1856-57	6,85,665	7,34,522	14,20,187
1857-58	10,81,100	10,78,100	21,59,200
1858-59	15,40,600	10,44,200	25,84,800

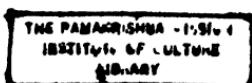
The Export trade, which at first bore but a small proportion to the Imports, has been increasing faster than the Import trade. In 1855-56 they were nearly balanced. In the year under report the value of the Import trade increased by nearly 42 per cent. while there is a trifling falling off in the value of Exports. This is ascribed to general commercial depression, to the low prices of eastern produce in the markets of Europe, and to inadequate facilities for transit, especially on the Indus. Of the increase in the imports, Rs. 10,17,000 are direct from England, but of that sum about 7½ lakhs of rupees are Railway Materials. The great increase in the Imports of Piece Goods of all kinds during the past two years will be seen from the table:—

	1853-54	1854-55	1855-56	1856-57	1857-58	1858-59
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Value of Imports of Cotton and Silk Piece Goods ... ...	20,82,000	22,80,000	28,26,000	27,39,000	46,69,000	67,14,000

Of the Imports Sind or the Punjab ought to supply the following:—

- Alum.
- Bardhans.
- Cotton Wool.
- Cotton Goods (many of the coarser kinds.)
- Dppers.
- Indigo.
- Grain.
- Gunny bags.
- Kirby and Grass.
- Molasses.
- Oils of kinds.
- Provisions of ditto.
- Silk.
- Sugar.
- Tobacco.

There was a decrease in the import of Cotton owing to extended cultivation in Sind itself, and large imports from the Punjab and overland from Rajpootana. The total Import by Sea was only 2,496 Maunds, while the cultivation in Sind, which, in 1857-58, was 59,209 Beegas, was 79,696 Beegas in 1858-59. Sind will soon become a great cotton and also grain exporting country, when there are greater facilities of transport. The existing means of communication between Kurrachee and the Indus are so imperfect that it is cheaper to bring Kirby and Grass in years when no rain falls from long distances by sea than from the banks of the river. Most of the principal staples of Export trade show, in the present Returns, a large and satisfactory increase. Horses were brought down and exported to a greater extent than was ever before known. Upwards of 3,000 arrived at Kurrachee, of which 310 were pur-



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chased for the Governments of Bombay and the Punjab, and many went Overland to India. 2,374 appear among the Exports by Sea, valued at Rs. 9,54,000 (£95,400.) These Horses are chiefly bred in the Khelat and Candahar territory, and with Wool and Munjeet and a few Drug and Dye Stuffs, form the principal articles which are received from the Affghans in exchange for our manufactured goods. The supply of both Horses and Wool may be said to be practically unlimited, and there is no surer mode of extending our influence over those countries than by being their customers and suppliers on a large scale. The benefit is mutual, for the experience of the last two years has shown that we can depend on the breeding countries between Kurrachee and Herat for a supply of Horses, sufficient for almost any possible demand of our mounted Corps, costing, on an average, less than £37, and inferior only to the Arab and Persian Horses brought by Sea to Bombay.

The rapid increase of the export of Horses from Sind, is shown in the annexed Table :—

*Value of Exports from Sind.*

	1855-56	1856-57	1857-58	1858-59
	Rs.	Rs.	Rs.	Rs.
Horses ... ...	3,39,000	4,38,000	3,39,000	9,54,000
Salt ... ...	...	13,000	28,000	2,09,000
Saltpetre ... ...	2,12,000	3,75,000	5,96,000	9,45,000
Jinjelly Seed (Sesamum) ... ...	5,91,000	8,37,000	16,06,000	10,87,000
Surace ... ...	4,76,000	3,18,000	13,51,000	17,11,000
Wool (Sheep's) ...	22,13,000	31,15,000	39,37,000	26,16,000
Cashmere Shawls ...	...	25,000	5,34,000	9,64,000

The export of Cashmere Shawls shews to what an extent the Punjab dealers are availing themselves of the Indus route. The increase in Exports to Calcutta is on account of Sind Salt exported by private individuals, Rupees 48,711, from 12 annas duty on the Indian Maund of 82lbs., and Rupees 1,60,850 on

account of the Bengal Government. The External Trade of Sind is thus alone  $2\frac{1}{2}$  millions sterling. The Commissioner remarks ;—“ Since we have known Sind, wages have never been so high, nor agriculture so extended and flourishing as during the past year, and if peace continues along the valley of the Indus and its neighbourhood, there can be but little doubt that commerce will continue to extend at a rate as rapid as during the past few years.”

In the Tonnage employed there was a considerable increase, especially in the square-rigged tonnage, which has only been engaged in the trade since 1851-2, previous to which no square-rigged sailing Merchant Ships frequented Kurrachee :—

Year.	Number Inward and Outward.		Tons.	
	Square Rigged and Steamers.	Country Craft.	Square Rigged and Steamers	Country Craft.
1858-59	197	3,046	109,481	160,006
1857-58	162	2,808	91,380	148,774
Increase in 1858-59 ...	35	238	18,101	11,223

Vessels drawing 19 feet 6 inches in the past year entered the Harbour of Kurrachee in perfect safety, and as many as twenty-five Vessels, ranging from 500 to 1,000 tons, were inside at one and the same time, all swinging to their anchors. Not a single accident happened in either entering or leaving the Harbour.

*STATEMENT showing the Value of the Export Trade of Sindhy Ser. during the past 10 years.*

Countries,	1854-55	1855-56	1856-57	1857-58	1858-59	Result of 1858-59 compared with 1857-58.			
						2	3	4	5
1 England	1,12,745	1,57,800	7,73,835	7,96,313	18,13,912	10,17,569	"	"	"
2 Bonbay	51,76,193	55,81,212	52,27,129	91,83,258	1,57,53,649	35,70,364	"	"	"
3 Concan	4,448	2,164	4,310	1,655	8,315	6,660	"	"	"
4 Cutch	51,735	74,946	72,125	1,81,113	1,19,252	"	"	"	24
5 France	3,300	"	4,532	"	362	"	"	"	65,161
6 Gia and Demau	58,034	57,608	1,41,787	9,222	11,999	2,777	"	"	362
7 Guzerat	63,445	1,91,322	2,01,954	1,21,739	74,337	26,034	"	"	"
8 Kathiawar	92,481	97,632	90,388	97,146	1,03,166	"	"	"	21,573
9 Malabar	"	1,891	8,930	81,640	1,00,771	3,625	"	"	"
10 Mauritius	10,978	11,065	13,325	21,702	80,384	55,682	"	"	80,677
11 Mekran	"	"	"	"	"	"	"	"	"
12 Mouthnein	1,75,608	1,74,619	3,12,007	2,59,942	76,280	76,280	"	"	"
13 Persian Gulf	"	"	"	"	2,63,770	3,823	"	"	"
	57,51,967	62,98,134	68,56,657	1,08,11,012	1,54,06,058	47,62,819	1,67,773		

*STATEMENT showing the Value of the Export Trade of Sind by Sea, during the past five Years.*

Countries.	1854-55.	1855-56.	1856-57.	1857-58.	1858-59.	Increase.	Decrease.	
	1	2	3	4	5	6	7	8
1 England	113	35,139	1,416	1,30,257	8,29,692	6,99,435	14,68,286	5
2 Bombay	27,02,680	53,74,320	66,97,549	96,66,201	81,97,915	1,83,111	1,83,111	—
3 Calcutta	4,1387	...	13,074	28,000	211,111	...	...	—
4 Concan	...	...	...	6,971	...	...	6,971	—
5 Cutch	1,99,671	1,12,401	1,38,310	1,99,008	1,86,307	...	...	—
6 France	...	...	93,390	3,90,111	4,41,795	54,684	...	—
7 Goa and Damaun	144	...	231	1,997	3,397	1,400	...	—
8 Guzerat	8,950	11,747	15,647	1,800	4,931	3,131	...	—
9 Kattiawar	75,194	1,21,485	61,597	40,484	72,396	31,912	...	—
10 Malabar	2,13,555	1,69,154	1,45,933	52,060	2,50,567	1,98,307	19,913	—
11 Mauritius	...	17,569	28,585	68,066	48,153	...	...	—
12 Mekran	16,737	35,895	24,062	34,839	31,373	...	...	3466
13 Moulnnein	...	...	...	...	...	...	...	—
14 Persian Gulf	2,07,216	1,66,694	1,32,445	1,61,492	1,59,587	...	...	1,955
15 Singapore, Ceylon, &c.	...	...	...	...	2,552	2,552	...	—
	34,68,937	60,44,403	73,55,922	1,07,81,286	1,04,42,726	11,74,732	15,13,292	

## II.—KURRACHEE CUSTOMS' DEPARTMENT.

Mr. Dalzell, the Deputy Collector, reports that the Sind Railway is rapidly progressing, and the first of a series of Steam Trains of the Inland Navigation Company, consisting of a Steamer and three Barges, has been imported, constructed, and launched within the short space of three months. Four new Government Steamers and four Barges were also completed during the year; and the last two of five Steam Gun-boats, intended for Police duties on the Indus, were ready. Two Steam Dredges for clearing the Harbour were constructed in the Dock-yard, and were ready for use. The Harbour has been surveyed and favorably reported on, and money granted to commence the works, which will eventually deepen the Harbour, increase its accommodation, and give a greater depth of water on the Bar. The fact that Kurrachee is the seat of Telegraphic communication with Europe adds to its commercial importance. Many Afghan traders, who had hitherto resorted to Calcutta, now prefer Kurrachee and Bombay. The want of regular steam communication on the Indus is felt by them. They are the chief carriers of English manufactured goods, which during the year were imported into Sind from Bombay to the extent of more than half a million sterling.

*Customs.*—The receipts during 1857-58, amounted to Rupees 60,183 on Imports, and Rupees 29,015 on Exports. During the past twelve months, the receipts on Imports amounted to Rupees 1,18,199, and on Exports to Rupees 88,081, including duty on Salt, Rs. 36,504, shipped to Calcutta by private individuals. The Board of Revenue at Calcutta had not yet remitted the duty due to the department on the Salt supplied to the Bengal Government. The sum due amounts to Rupees 1,43,000. The receipts from other sources, viz. Port Dues, Pilotage at Khetty, Cranage, &c., amounted during the year 1857-58 to Rupees 24,366. They amounted to Rupees 26,930 in 1858-9. The enhanced rates of duty introduced by Act VII. of 1859, were levied from the 21st March, and at Khetty and Seir Gundia a few days later.

*Salt.*—The amount of revenue realised on Salt, exported by private individuals, was ... ... Rs. 36,504

Due by the Bengal Government on 190,710 maunds of Salt, exported on the order of the Board of Revenue, ... ... ... ... ... Rs. 1,43,025

Total...Rupees 1,79,529

The Salt Company had in store about 1000 tons of Salt at the end of the year. The season for importing it closed on the 23rd March, which is earlier than usual.

<i>Miscellaneous.</i> —Cranage, Wharfage, and Godown rent	Rs. 1,609
Fishing Licenses	... " 2,604
Harbour-Craft Licenses	... " 887
Fees for Register and other Certificates	... " 781
Fines for contravention of the Customs regulations	... " 352
Confiscated Goods	... " 18

Total ... ... Rs. 6,251

In 1857-58, the receipts from this source were Rs. 6,111.

*Inland Navigation.*

	1857-58.	1858-59
Imports down river	... 63,37,344	55,16,115
Exports up river	... 11,05,062	18,22,206
This is exclusive of Government stores and Railway material.		
The decrease in Imports was owing to unfavourable prices in Bombay keeping back produce. The principal articles of increased Export were :—		
Beer and Wines	... ...	Rs. 88,748
Spices	... ...	98,243
Metals	... ...	37,130
Copia, Turmeric, &c.	... ...	48,005

The Boat traffic on the river shows a large increase over the past year :—

	In 1857-58.		In 1858-59.		Increase.	
	No. of Boats.	No. of Maunds.	No. of Boats.	No. of Maunds.	No. of Boats.	No. of Maunds.
Arrivals ..	3,375	1,790,000	5,421	1,943,968	1,546	153,968
Departures ...	2,793	1,230,958	4,872	1,631,069	2,079	400,117

The item 2,793 is not quite correct.

The Port Dues realised in 1858-59 were Rs. 22,584, in the preceding year Rs. 18,255.

*Expenditure.*—The cost of the Customs establishment amounted to Rs. 19,840 in 1857-8, and to Rs. 15,548 in 1858-9. The

difference is owing to the alteration introduced since 1st May of debiting charges subsequent to audit.

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## COAL AND IRON IN THE PUNJAB.

### *Punjab Records.*

In July 1859 the Lieutenant Governor of the Punjab appointed a Committee to examine and report upon certain deposits in ranges of mountains around Murree, supposed to be coal. The Committee dug out specimens of what they supposed to be lignite at Bugla 12 miles from Murree, from the side of the ravine between the villages of Bail Chuckka, under the villages Bulannia and Bhun, and on one of the spurs of Mount Nir under the village of Thoar. They looked with most confidence to the deposit on the South East of Mount Nir near Kundole, about 800 or 1,000 feet above the level of the river Jhelum. They examined farther deposits between Derakote and Chulavera, in the great ravine under Chulavera, close to Bandie, under the village of Cheganah, and an iron deposit at Bukkote. The last is found in the limestone formation in the form of nodules imbedded in clay. Two specimens of coal also were found there, one of which much resembled Plumbago. No member of the Committee possessed a competent knowledge of Geology. The specimens they procured were sent to the Geological Survey office for analysis.

Of three of the specimens analysed one was found to contain 36 per cent. of volatile matter, 56 carbon and 8 ash; the second 30½ per cent. of volatile matter, 45½ of carbon and 24 of ash, and the third still more ash, owing to the presence of shale. No trace of sulphur was detected. This report was deemed so encouraging that the Governor General in Council directed Mr. H. Medlicott, the Professor of Geology in the Thomason College, to visit the localities and report. Mr. Oldham, the Director of the Survey, however, while he acknowledged that the quality of the specimens sent was better than the average of Indian Coal, held out no hopes of its being procured in any quantity. The specimens were merely detached branches or stems of trees or small isolated accumulations of vegetable matter, imbedded in the sand-stones. Mr. Medlicott spent 12 days in the localities described by the Committee. His researches "proved altogether unpromising." The Murree Coal he found to be lignite. It consists of the stems and roots of trees imbed-

ded in the thick beds of soft sand-stone of the lower Siwalik formation, or the middle Tertiary period of Geologists. When the stem has been crushed, the whole 2 to 3 inches thick is lignite; in other cases, the core is mostly silicified (petrified) wood, the bark alone being pure lignite. He did not see any place where half a maund of this substance could be extracted. He also examined the Kotlee Coal in Jummoo, belonging to the Cashmere Maharajah, previously reported on by Mr. Calvert whom Mr. Brunton, Chief Engineer of the Punjab Railway deputed for the purpose. The result was equally unsatisfactory. The Coal measures are the same as Dr. Flemming described in 1853 as "lignite or Salt range Coal." Even if it were of established value, the conditions on the spot are such as to make the extraction of it very uncertain.

As to Iron, that which the natives work near Moharee is very poor compared to most Indian ores. It is a concretionary haematite (red oxide) but very imperfectly separated from the clays, both locally and in the mass, which is irregular in size and direction; being apparently consequent upon the contortion and modification of the carbonaceous and ferruginous shales; its occurrence is very uncertain, much of what the natives work being found in isolated patches in the hard lime-stone.

Mr. Medlicott also visited the old Coal diggings of the natives at the base of the hills near the village of Seilah. The Coal, though occurring with but little interruption, over a very large area, is nowhere of sufficient thickness, or sufficiently constant at a moderate thickness, to give a certainty of an abundant supply. As one native had offered to deliver this Coal at Mooltan at 8 annas a maund, they might be left to work it as an experiment. The chief difficulty will be to free it from the shale with which it is associated and into which it graduates. No experiment at regular mining should be made till a detailed Geological examination and map of the district is made, and the Survey could not undertake it this season. The following is an analysis of two specimens sent to Calcutta by Mr. Medlicott from Kotlee.

No. 1.	No. 2.
Carbon ... 90 5 per cent.	Carbon ... ... 90 per cent.
Volatile matter 4 0 "	Volatile ... 6 "
Ash ... ... 5 5 "	Ash ... ... 4 "

Its general character is that of a hard anthracite.

**MILITARY FORCE IN BENGAL, THE PUNJAB  
AND MADRAS.**

ON 1ST OCTOBER 1858.

*Parliamentary Papers.*

I.—BENGAL.

		European Commissioned Officers.	European Non-Commissioned, and Rank and File.	Native Commissioned, Non-Commissioned, and Rank and File.	TOTAL.
<b>HER MAJESTY'S ARMY :</b>					
Royal Artillery ; 2 Troops of Horse	99	2,559	...	...	2,658
" 13 Companies of Foot }					
Cavalry ; 6 Regiments, including 2nd Battalion Military Train ... ...	217	2,911	...	3,128	
Infantry ; 45 Regiments ... ...	2,194	38,408	...	40,602	
	2,510	43,878	...	46,388	
<b>HER MAJESTY'S INDIAN FORCES :</b>					
Horse Artillery ; 3 Brigades ...	85	1,080	167	1,332	
" Gun Lascars attached .....	..	...	257	257	
European Foot Artillery ; 6 Battalions ...	176	1,967	601	2,744	
" Gun Lascars attached .....	..	...	509	509	
Native Foot Artillery ; 3 Battalions ...	70	11	606	687	
" Gun Lascars attached .....	..	...	115	115	
	331	3,058	2,255	5,644	
<i>95825</i>					
European Light Cavalry ; 4 Regiments	152	1,660	5	1,817	
Bengal Yeomanry Cavalry ...	25	242	...	267	
Governor-General's Body Guard .....	3	1	127	131	
European Infantry ; 4 Regiments	157	2,695	...	2,852	
" Invalids .....	73	...	...	73	
" Veteran Company .....	..	28	...	28	
Sappers and Miners .....	12	156	853	1,021	
Native Infantry ; 25 Regiments, and the remnants of five others .....	656	39	16,743	17,438	
Irregular Cavalry ; 12 Regiments	56	...	5,261	5,317	
Ramgurh Irregular Cavalry .....	..	1	...	178	179
Mooltanee Regiment of Cavalry .....	9	...	670	679	
Benares Horse .....	6	...	209	215	
Meade's Horse .....	8	1	495	504	
Alexander's Horse .....	5	...	468	473	
Hodson's Horse ; 2 Regiments .....	13	...	1,064	1,077	
Camel Corps .....	10	200	160	370	

	European Commissioned Officers.	European Non-Commissioned, and Rank and File.	Native Commissioned, Non-Commissioned, and Rank and File.	TOTAL.
<b>LOCAL CORPS :</b>				
Assam Local Artillery Battery ; 2 Companies	1	1	108	110
Schundy Corps of Sappers and Miners	1	2	213	216
Infantry ; 31 Regiments	132	30	19,143	19,305
Lahore Light Horse	5	142	2	149
Meerut Light Horse	9	119	2	130
Peshawur Light Horse	10	178	153	341
	1,344	5,494	46,854	52,692
<b>SUMMARY :</b>				
British Troops	2,510	43,878	...	46,388
Indian Artillery	331	3,058	2,255	5,644
Cavalry and Infantry	1,344	5,494	46,854	52,692
<b>TOTAL Military</b>	<b>4,185</b>	<b>52,430</b>	<b>46,109</b>	<b>104,724</b>
Police and other Corps in the Civil Department in the Lower Provinces of Bengal Presidency, on 1st Dec. 1858 :				
Cavalry ; 3 Corps	3	15	406	424
Infantry ; 12 Corps	10	12	6,258	6,280
<b>CIVIL—Lower Provinces</b>	<b>13</b>	<b>27</b>	<b>6,664</b>	<b>6,704</b>



## II.—PUNJAUB.

CIVIL TROOPS under the Chief Commissioner of the PUNJAUB,  
on 1st November 1858.

	POLICE.		LEVIES.		TOTAL in each Division.	GRAND TOTAL.
	Cavalry.	Infantry.	Cavalry.	Infantry.		
Serving in Punjaub .....	3,884	6,425	2,664	4,765	17,738	24,078
Serving in Delhi Territory .....	1,444	2,872	979	1,045	6,340	
," in Hindostan .....	...	2,088	1,545	...	3,633	3,633
CIVIL—Punjaub .....	5,328	11,385	5,188	5,810	27,711	27,711

*Note.*—The Police and other Civil Corps in the Lower Provinces and in the Punjaub amount together to ... ... 34,375 Men.

By a Return from the Quartermaster-General's Department it is shown that the organised Police Levies, &c. in the Bengal Presidency amount to ... 68,698 Men.

Which would give to Oude and the North-Western Provinces from which the Returns of Civil Corps have not been received ... ... ... 34,323

Men in addition to the numbers returned for the Punjaub and the Lower Provinces.

## III.—MADRAS.

NAME	European Commissioned Officers	European Non-Commissioned Officers and Bank and File.	Native Commissioned Officers and Bank and File.	Native Non-Commissioned Officers and Bank and File.	TOTAL
					REGIMENT
<b>HER MAJESTY'S ARMY :</b>					
Royal Artillery ; Horse	7	226	...	...	233
Foot	23	656	...	...	678
Cavalry ; 2 Regiments	61	1,296	...	...	1,357
Infantry ; 8 Regiments	318	9,210	...	...	9,528
TOTAL	409	11,317	...	...	11,726
<b>HER MAJESTY'S INDIAN FORCES :</b>					
European Infantry ; 3 Regiments	94	3,606	...	...	3,700
European Horse Artillery ; 1 Brigade	39	495	194	718	718
European Foot ditto ; 4 Battalions	69	1,556	223	1,688	1,688
Gun Lascars attached and Karkanaah Establishments	...	...	1,012	1,012	1,012
Native Foot Artillery ; 1 Battalion	14	2	630	630	630
Gun Lascars attached and Karkanaah Establishments	...	...	526	526	526
Gun Lascars attached to Royal Artillery	...	...	66	66	66
East Indian Artillery Drivers	1	46	...	...	46
Native Light Cavalry ; 7 Regiments	90	21	3,085	3,085	3,390
Native Infantry ; 52 Regiments	...	...	...	...	...
3 Extra Regiments, ditto	...	...	...	...	...
Sappers and Miners	703	100	50,350	50,350	50,350
Madras Sapper Militia	...	...	...	...	...
Pegu Police Battalion	...	...	...	...	...
Native Veteran Battalions (2)	10	6	1,942	1,942	1,942
7 Corps appertaining to Civil Department	...	...	...	...	...
TOTAL	1,108	6,012	56,546	56,546	56,546
<b>SUMMARY.</b>					
Her Majesty's Army	409	11,317	...	...	11,726
Her Majesty's Indian Forces	1,108	6,012	56,546	56,546	56,546
TOTAL	1,517	17,329	63,092	63,092	63,092

**REVENUE ACCOUNT OF THE THREE INDIAN  
RAILWAYS.**

*For the Half-Year ending 30th June, 1859.*

**I.—EAST INDIAN RAILWAY.**

Captain C. J. Hodgson, Officiating Consulting Engineer to the Bengal Government, reports the increase in the traffic of the Bengal line as very considerable. The line was open for 142 miles:—

Gross Earnings	...	...	Rs. 13,14,440
Working Expenses	...	...	„ 5,89,799
Profits	...	...	„ 7,24,641

The expenses therefore were 44·87 per cent. on the earnings. The cost of the 142 miles of open line may be assumed at 1,700,000 Rupees, on which the above sum is very nearly 4½ per cent. or at the rate of 8½ per cent. per annum. The earnings might have been larger, but for the want of conveniences and means of transport for further development of the Coal Traffic, although the increase in the year in that was no less than 80 per cent. The increase in the working expenses was nearly in the same ratio as the earnings. Fewer 1st Class Passengers were carried, but the number of 2nd and 3rd Class Passengers increased satisfactorily. The earnings from the Passenger Trains increased in a greater proportion than the number of Passengers, and in nearly five times as great a proportion as the total distance run by the Trains; the earnings per Train mile increased considerably also, which facts show that more Passengers must have travelled per Train, and these, on the average, greater distances. The quantity of ordinary Goods of all kinds carried, increased nearly 27½ per cent.; but that of Minerals (Coal) 80 per cent. and the earnings from both 66 per cent. being in amount very nearly three-fourths of the whole increase of earnings. The increased earnings per Train mile show, either, that the Trains were better filled, or that the Goods were carried longer average distances, probably both to some extent. Part of this increase was in materials carried for the Railway Company's works. Approximately the increase in merchandize carried for the public was—

Ordinary Goods	Quantity 25 per cent.	Earnings 20 per cent.
Minerals	... „ 63 „	... „ 66 „

The receipts from Special Traffic decreased. The Steam Ferry account shows a large balance against the vessels. If they could avoid accidents they would shew no serious loss.

That the total working expenses should have increased 47·7 per cent. with Train mileage only greater by 22½ per cent. is an unpleasant feature in the Account Current. The percentage of 44½ on the earnings is not high compared with Railways in other parts of the world, but considering that at present the renewals of Permanent Way are trifling, and how favorably this Railway is circumstanced in respect to Coal, this rate is higher than it should be on this line with its exceptionally large Traffic. The highly paid European establishments, especially the Locomotive, should be reduced.

The returns shew that the maintenance of way increased very nearly in the same proportion as the receipts. The increase is almost entirely in the renewal of Permanent Way, all other items shewing a decreased charge per Train mile. The ultimate cost of deterioration of rails is expected to amount to 1 per cent. per annum on the original cost. The Locomotive charges increased in a ratio even higher than the receipts.

Of the 8½ per cent. on Capital, 4½ was from Passengers and 3½ from goods. The number of Engines erected and in hand was 75, of which 48 were for goods. The number despatched to the North West was 21. In the carriage and wagon department there were in good running condition a total of 1,117 vehicles of all sorts against 971 for the half year ending December 1858, showing an increase of 146 vehicles running. The number built and turned out of the shops at Howrah during the six months was 162, or an average of 27 vehicles per month.

#### II.—G. I. P. RAILWAY.

The G. I. P. Railway shows satisfactory results in respect both to Earnings and Expenditure, when compared with either of the other Railways open. The gross earnings more than doubled in amount those of the corresponding half of 1858, the figures being—

Gross Earnings, 1st half of 1858	...	Rs.	4,59,995
" "	1859	..."	" 9,55,709

The length of line open in the two half years was respectively—

		Miles.	Total.
<i>1st half of 1858</i>	...     { Concan    89 Deccan    0 }     }	89	89
<i>1st half of 1859</i>	...     { Concan    89 Deccan 106 }	195	
The Gross Receipts were ...	...     ...     Rs. 955,709		
Maintenance and Working Expenses	...     ,,     426,452		
Net Receipts	...     ...     529,257		

The Expenses were therefore 44.6 per cent. of Earnings.

" Profits	55.4	"	"
The Gross Receipts per mile open	...     "     Rs. 4,901	7	0
per train mile	...     "     "     3 11 9		

The Profits per cent. per annum on Capital     "     £5 14 3

For the two Sections separately—

	Concan.	Deccan.
Receipts per mile open	Rs. 7,747 7 2	2,523 13 9
" per train mile	4 2 11	2 14 10
Profits per cent. per annum	£8 13 6	£2 11 8
the Deccan line still getting very little traffic, especially between Poona and Diksal, a distance 64 miles. The decrease of fare from one anna to half an anna per mile raised the number of 2nd class passengers from 18,490 $\frac{1}{2}$ in the first half of 1858 to 66,210 $\frac{1}{2}$ , and the receipts from Rs. 25,152 to Rs. 53,128. The third class traffic duly increased. Though the first class traffic decreased, the receipts on the whole shew an increase of 33 per cent. Comparing the G. I. P. with the E. I. Railway, we find the following results:—		

The total Earnings of the two lines were—

E. I. Railway,	...     ...     Rs. 13,14,439
G. I. P. Railway,	...     ,,     9,55,709

The Passenger Traffic thus—

	E. I. Railway.	G. I. P. Railway.
1st Class	... No. 6,661	5,968 $\frac{1}{2}$
2nd     "	...     " 29,258	66,210 $\frac{1}{2}$
3rd     "	...     " 6,44,435	5,35,506
Total No.	6,80,354	6,07,685
Receipts	... Re. 4,36,738	0 0 3,53,112 0 0
Average per passenger	... "	0 10 3 0 9 3 $\frac{1}{2}$

## Goods traffic—

	E. I. Railway.	G. I. P. Railway.
Merchandise Mds.	8,00,000	20,79,392
Railway Materials	3,16,000	14,74,938
Minerals ... ,	28,84,732	.....
Total Mds. ...	40,00,732	35,54,330
Total Receipts Rs. ....	7,70,122	5,34,090

or, excluding the Minerals on the East Indian Railway—

	E. I. Railway.	G. I. P. Railway.
Receipts ... ...	Rs. 2,73,211 0 0	5,30,794 0 0
" per ton		
carried... ... ,	6 13 8	4 2 10
" per mile		
open ... ... ,	1,938 0 0	2,722 0 0

showing the traffic in ordinary Merchandise on the G. I. P. Railway to be vastly greater than on the E. I. Railway, but paying less per ton carried—but per mile of line open, the advantage is still with the G. I. P. Railway.

On the Concan line alone the receipts from Merchandise were Rs. 4,390 per mile—considerably more than double the receipts from the same on the East Indian line.

The Expenses amounted to the following percentage on the Gross Receipts—

E. I. Railway, ...	...	...	...	44.87
G. I. P. Railway, ...	...	...	...	44.62

But on the Concan Line alone the percentage was only 39.96; on the Deccan Line it was 36.71. The expenses of maintenance of a great part of the Deccan Line were still charged to capital but on the Concan Line, being all charged to Revenue, amounted to Rs. 513 per mile against Rs. 879 on the E. I. Line.

In the Locomotive Department the expenses per train mile were—

On the E. I. Railway, ...	...	Rs. 0 13 0
On the G. I. P. Railway, ...	"	0 13 10

There being only this small difference, although the cost of fuel per engine mile on the E. I. Railway was, Rs. 0 1 7  
And on the G. I. P. Railway, ... , 0 5 7.3

the reason being, that the expenses of establishments on the G. I. P. Line are very much below those on the E. I. Railway.

The Profits on the E. I. Railway amounted to £8-10 per cent. per annum. On the G. I. P. Railway they amounted to £5-14-3 on the whole Line, but on the Concan Line only, to £8-13-6.

The next half year would shew considerable improvement in the Deccan line consequent on the opening from Diksal to Barsee Road, which took place on the 24th October.

### III.—MADRAS S. W. RAILWAY.

The Gross Receipts were, ...	Rs.	2,59,459
Expenses, ...	"	1,82,977
Profits, ...	Rs.	76,482

The Expense was therefore  $70\frac{1}{2}$  and the Profits  $29\frac{1}{2}$  per cent. of the Earnings. The Maintenance of Way being no longer chargeable to Capital brought up the Expenses to this high percentage. The cost per mile open was Rs. 879, exactly the same as on the E. I. Line, but the traffic being so small, this expense told very heavily, amounting to Rs. 1-1-4 per train mile.

The Expenses in other respects were not greater than on the other two railways. Those of the locomotive department were much lower being only Rs. 0-9-10 per train mile, although the cost of fuel was about three times as much as on the E. I. line. But the weight of the trains is not more than half that of those of the E. I. Railway. The 1st and 2nd class passengers were carried by both fast and slow trains at a loss.

The number of 3rd Class Passengers carried was less than one-fourth of the number to the East Indian Railway, but the quantities of merchandise (exclusive of minerals) were—

	Mds.	Per mile open.
E. I. Railway	... 8,00,000	5,674
Madras Railway	... 5,76,244	6,003
	E. I. Railway.	Madras Railway.
And the receipts were	Rs. 2,00,000 0 0	74,435 0 0
Per mile open	... " 1,428 8 0	776 0 0
Per ton carried	... " 7 0 0	3 9 11

So that although the quantity carried per mile of line open was greater on the Madras Railway, the receipts per ton were far less. The only satisfactory feature of the returns is that the extent of traffic of all kinds grows every successive half year.

*General Results of the Work of the New I. & C. Railroad.—Receipts.*

39

Name of Railway	Period.	PASSENGERS.										Total Receipts						
		Length open		Passenger Miles		Passenger Miles		Passenger Miles		Passenger Miles		Receipts from Merchandise		Receipts from Merchandise		Receipts from Merchandise		
		Total Miles	Per Mile open	Total Miles	Per Mile open	Total Miles	Per Mile open	Total Miles	Per Mile open	Total Miles	Per Mile open	Total Miles	Per Mile open	Total Miles	Per Mile open	Total Miles	Per Mile open	
I. & C. Railroad	January to June.	121 Miles	Total	... .	... .	No. 7,737	No. 25,335	No. 5,482	No. 20,258	No. 1,411	No. 338	Rs. 9,464	A. P. 15	Rs. 82,059	A. P. 10	Rs. 9,464	A. P. 10	
			Per Train Mile	... .	... .	No. 64	No. 209	No. 4,531	No. 4,504	No. 3,403	No. 10	No. 3,400	Rs. 0	A. P. 3	Rs. 7,372	A. P. 3	Rs. 0	A. P. 3
I. & P. Preliminary	January to June.	111 Miles	Total	... .	... .	No. 11,258	No. 2,297	No. 542	No. 575	No. 243	No. 11	No. 6	No. 4	No. 1	No. 2	No. 1	No. 1	No. 1
			Per Train Mile	... .	... .	No. 6,661	No. 29,358	No. 14,435	No. 6,501	No. 3354	No. 521	No. 6	No. 377	No. 20	No. 4,184	No. 139	No. 15	No. 10
M. & M.	January to June.	89 Miles	Total	... .	... .	No. 17,79	No. 15,491	No. 4,120	No. 6,730	No. 239	No. 105	No. 14	No. 6,280	No. 9	No. 3,450	No. 95	No. 9	No. 9
			Per Mile open	... .	... .	No. 17,79	No. 15,491	No. 4,120	No. 6,730	No. 239	No. 105	No. 14	No. 6,280	No. 9	No. 3,450	No. 95	No. 9	No. 9
C. L. P. Preliminary	January to June.	195 Miles	Total	... .	... .	No. 141	No. 41	No. 925	No. 980	No. 4907	No. 2,574	No. 3	No. 2,594	No. 4	No. 5,163	No. 7	No. 9	No. 7
			Per Train Mile	Passenger	Total	No. 141	No. 41	No. 925	No. 980	No. 4907	No. 2,574	No. 3	No. 2,594	No. 4	No. 5,163	No. 7	No. 9	No. 7
M. & M.	January to June.	96 Miles	Total	... .	... .	No. 65	No. 18	No. 112	No. 136	No. 436	No. 2	No. 4	No. 2	No. 4	No. 4	No. 4	No. 4	No. 4
			Per Mile open	... .	... .	No. 65	No. 18	No. 112	No. 136	No. 436	No. 2	No. 4	No. 2	No. 4	No. 4	No. 4	No. 4	No. 4
I. & C. Railroad	January to June.	85 Miles	Total	... .	... .	No. 335	No. 2,446	No. 55	No. 448	No. 3,116	No. 2,157	No. 11	No. 2,738	No. 14	No. 4,901	No. 1	No. 1	No. 1
			Per Train Mile	Passenger	Total	No. 335	No. 2,446	No. 55	No. 448	No. 3,116	No. 2,157	No. 11	No. 2,738	No. 14	No. 4,901	No. 1	No. 1	No. 1
I. & C. Railroad	January to June.	96 Miles	Total	... .	... .	No. 62	No. 26	No. 65	No. 60	No. 2,371	No. 16	No. 3	No. 2	No. 1	No. 4	No. 1	No. 1	No. 1
			Per Mile open	... .	... .	No. 62	No. 26	No. 65	No. 60	No. 2,371	No. 16	No. 3	No. 2	No. 1	No. 4	No. 1	No. 1	No. 1
M. & M.	January to June.	96 Miles	Total	... .	... .	No. 5	No. 31	No. 1375	No. 1,411	No. 1,412	No. 2	No. 695	No. 1	No. 2	No. 310	No. 6	No. 4	No. 4
			Per Train Mile	... .	... .	No. 5	No. 31	No. 1375	No. 1,411	No. 1,412	No. 2	No. 695	No. 1	No. 2	No. 310	No. 6	No. 4	No. 4
I. & C. Railroad	January to June.	96 Miles	Total	... .	... .	No. 5	No. 39	No. 1,567	No. 1,631	No. 150,423	No. 536,566	No. 146,956	No. 8	No. 112,503	No. 0	No. 2,65459	No. 1	No. 10
			Per Mile open	... .	... .	No. 5	No. 39	No. 1,567	No. 1,631	No. 150,423	No. 536,566	No. 146,956	No. 8	No. 1,171	No. 14	No. 2,702	No. 11	No. 2
I. & C. Railroad	January to June.	96 Miles	Total	... .	... .	No. 07	No. 0063	No. 1,933	No. 2,01	No. 1,14	No. 1,14	No. 1	No. 1	No. 1	No. 1	No. 5	No. 3	No. 3
			Per Train Mile	... .	... .	No. 07	No. 0063	No. 1,933	No. 2,01	No. 1,14	No. 1,14	No. 1	No. 1	No. 1	No. 1	No. 5	No. 3	No. 3

*General Results of the Working of the three Indian Railways.—Expenditure.*

[ 40 ]

Period.	Length open.	Train Mileage.	EXPENDITURE.				
			Traffic Department.	Mercantile	General Charges.	Steam Ferry.	Total.
			Cochin.	Rs.	Rs.	Rs.	Rs.
1858. January to June.	121 Miles {	Per Cent. of Total Expenditure Per Cent. of Gross Earnings	Rs. 21.2 9.5	Rs. 39.5 17.7	Rs. 11.3 5.1	Rs. 12.3 5.5	Rs. 53 2.4
1859. January to June.	141 Miles {	Per Cent. of Total Expenditure Per Cent. of Gross Earnings	21.0 9.4	40.3 18.1	8.9 4.0	11.0 4.9	12.5 2.8
1858. January to June.	80 Miles {	Per Cent. of Total Expenditure Per Cent. of Gross Earnings	20.0 8.1	47.9 19.4	9.4 3.8	11.8 4.8	10.9 4.0
1859. January to June.	195 Miles {	Per Cent. of Total Expenditure Per Cent. of Gross Earnings	11.6 5.1	51.9 23.2	12.5 5.6	15.0 6.7	8.9 4.0
1858. January to June.	85 Miles {	Per Cent. of Total Expenditure Per Cent. of Gross Earnings	46.1 32.5	26.1 18.4	12.3 8.7	9.6 6.8	5.9 4.1
1859. January to June.	96 Miles {	Per Cent. of Total Expenditure Per Cent. of Gross Earnings	46.1 32.5	26.1 18.4	12.3 8.7	9.6 6.8	5.9 4.1
Madrass Railway.		G.I.P. Railway.		E. I. Railway.		Name of Railway.	

## THE PASSAGE OF THE INDUS AT ATTOCK.

*Punjab Selections, Vol. IV., No. 3.*

1860.

This selection consists of the correspondence of Major Robertson, Officiating Superintendent of the Lahore and Peshawur Road, and of Captain Taylor, Executive Engineer, Nowshera, with the Punjab and Supreme Governments, containing projects for improving the passage of the Indus at Attock. A bridge-of-boats is maintained at Attock for 7 or 8 months of the year, and no improvement whatever is then required; but the ferry during the hot months is both tedious and dangerous.

I.—Major Robertson suggests a Steam Ferry. The boat used must be capable of being worked up to a speed of 17 miles an hour, as the current runs at 13. To be manageable its extreme length should not exceed 100 feet, its breadth 14 feet, nor its draught 3 feet. The boat would not give a displacement of more than from 50 to 55 tons, and would require engines of 50 horse power. Of such boats there should be three. As the river rises and falls within a limit of 50 feet, a floating stage for communication with the shore would be required. A basin, or wet dock, to secure the boats, must be constructed below the fort. The total cost would be

3 Steamers,	... . . . .	Rs. 1,53,000
3 Landing stages and wet dock,	... . .	3,45,000
Maintenance, at 5 per cent. equal to a capital of		4,18,400
		7,63,400

But a wire suspension foot bridge, on masonry piers and abutments, constructed so as to be suitable for a full cart roadway suspension bridge, might be constructed across the Indus for about two lakhs of rupees. If we retain the Trans-Indus territory we must have a permanent bridge over the river. A foot bridge would be the first step to it.

II.—Captain F. S. Taylor suggests another scheme on a smaller scale. He would keep the present establishment of six boats of five tons burden, manned by six men each, and making four trips a day each. It is generally sufficient for the traffic and fails only in bad weather or on an emergency. In addition he would build two small steamers of 30 or 40 tons burden, worked by engines of 20 or 30 horse power. They should ply on the common ferry line, and their power would

be amply sufficient to fetch across the river in all weathers. They should be screws with a draught of  $2\frac{1}{2}$  feet. They could be built and fitted at Attock with engines from Bombay, in one season, at a cost of Rs. 12,000 each. They would require a European overseer and a second class hand on salaries of Rs. 150 and 80 respectively. Such a ferry would be more useful than a permanent bridge, which an enemy might destroy. Peshawur holds a strong force, but it is the farthest point of our dominions, and were our flank turned from one of the other passes in the Derajat, a retreat might be necessary for a time. The new gunboats prepared by Messrs. George Rennie and Sons for the Indian Government should be used. The one about to be sent to Mooltan might be tried on the Indus.

III.—Major Robertson proposes another plan—to drive a tunnel under the bed of the Indus through rock, at a probable cost of about 5 lakhs of rupees. There would not be the same difficulties as in the case of the Thames Tunnel, which was carried through the loam and silt of the bed of the river. At the best spot for the tunnel the width of the river is 1,216 feet. The rock is at no point 40 feet under the low cold weather surface of the river; and allowing a safe thickness of rock between the roof of the tunnel and bed of the river, he fixes the upper level of the excavation at 60 feet under low water mark. The dimensions proposed for the tunnel inside, are 24 feet wide by 20 feet in height, and a lining under the river of brick masonry 2 feet thick. This places the formation level of the roadway 82 feet under the low level; and placing the entrances 100 feet above this level for safety, there are 182 feet to descend and ascend. The gradient proposed is 1 in 20; rather steep for railway traffic, but offering no difficulties to ordinary traffic. The total length would be 7,215 feet with 10 shafts 9 feet in diameter for ventilation. The time of execution would not exceed 4 years. To test the feasibility of the work he proposes a small drift gallery under the bed of the river at a cost of Rs. 9,634.

The Lieutenant Governor of the Punjab recommends the Government of India to sanction this drift gallery. On the 5th March 1859, he is informed that with so many important unfinished works spread over the country, the Government is compelled to decline sanction to a work, which, however useful, is not of that emergent character that alone at this time would justify the requisite expenditure. At the same time the Government approves of that portion of Captain Taylor's proposal which has reference to the experimental use of one of the new river gun-boats for the ferry at Attock, and promises to make a further communication on the subject when it is known whether any of the gun-boats are available on the Indus.

## THE ADMINISTRATION OF OUDE.

*First Report, to March, 1859.*

### *Parliamentary Papers.*

This report was drawn up by Mr. Montgomery, the Chief Commissioner, previous to relinquishing his office in March 1859. As the first report since the annexation of the Province it notices many subjects of general interest beyond the scope of the usual annual review of an administration.

#### I.—OUDE BEFORE ITS FINAL SUBJUGATION.

*Physical Outlines and Products, &c.*—Oude is situate in the centre of the great sub-Himalayan valley, drained by the river Ganges and its tributaries, and extending from E. longitude  $73^{\circ} 16'$  to the junction of that river with the Brahmaputra at the head of the Bay of Bengal. Bounded on the north by the lower ranges of the Himalayan chain, its opposite limit is clearly defined by the river Ganges. An irregular line running from the Ganges near Futtteghurh to the Philibheet Terai above Khyreegurh, separates Oudh from Rohilcund on the west, and on the east a similar demarcation, extending from the Ganges across the Gogra to the Nepal Hills, defines the eastern boundaries of the older districts of Jounpore, Azimghur, and Goruckpore. In the form of a parallelogram, the Province of Oudh lies obliquely on the map, stretching from the 80th to the 83rd meridian of E. longitude, and  $25^{\circ} 40'$  to 28th parallel of north latitude, giving a superficial area of about 23,924 square miles. Its climate varies. On the west the dry winds parch the soil; on the south-east the moisture of the eastern winds cover it with a pleasing verdure. The sub-montane jungles, known as the Terai, are deadly, but the country between the Gogra and the Himalayas yields exuberant crops. The rivers Goomtee, Sai, Chonka and Gogra intersect the length of the Province in parallel course. Steamers can ply on the Gogra as far up as Byram Ghat. The sinuosities of the Goomtee limit commercial navigation; the other streams are mere rivulets, except the Raptee which is a mountain torrent. Of timber trees such as toon, sissoo, sal and teak there is a plentiful growth.

The population, of which no census has yet been taken, is estimated at 8 millions. Of Brahmin castes there are many subdivisions. The highest rank is assigned to the Missur, Shukul, Tewarry, Dube, Phathak, Pande, Upudhya, and Choube; but

there are 113 other tribes all carefully graduated in the Brahminical scale. The Baiswarrah Rajpoots claim to be of ancient stock, sprung from one Tilok Chund, who came from Oojain in the days when Malwa was governed by Vickramajeet, or about the commencement of the Christian era. His two grandsons settled themselves, the one in the village of Nybusa and the other in Symbunsee near to Oonao. Another branch is widely spread under the names of Bains, Bhall, Sultan, Kauhpuria, Surujbansi, Chundrbansi. From these two castes the Company drew 40,000 of its finest men. Mahomedan communities of Sheikhs, Syuds, Moghuls, and Afghans are to be found throughout the Province, and there are a few families originally sprung from Hindoo stock, whose ancestors embraced the faith of the conquerors, but who still adhere to the rites and customs regarding inheritance, marriage, and tenure of land, which are observed by their Hindoo brethren. The aborigines are found among the lowest class of cultivators, the Passees, Lodhis, Koormees and Kachis. Towards the hills are the Tharoos. Poppy cultivation is extensive, but now the bulk of the produce finds its way into the Government factories at Ghazeepore. The most important and lucrative manufactures are of salt, saltpetre, and soda. The trade with Nepal consists of an exchange of salt and opium for the iron, copper, brass and borax of the hills. Wheat, barley, maize, the long-stalked bajra, rice and pulse are staple products; cereals, oil, sugar-cane, indigo and cotton are produced in abundance.

*Ancient History.*—Oude is first mentioned in Menu as Panchala or Cunya Cubja. Its capital, Ajoodya, was the birthplace and seat of a race of Kings who boasted descent from the Sun and Moon, and ruling over Oudh proper and the country between the Jumna and Ganges, are now claimed as the progenitors of the Princes of all other countries in India. The famed Rama was its king two or three centuries before Christ; sixty princes ruled after him, when the seat of empire was transferred to Kanouj. The boundaries of this new kingdom extended at one time as far as the Chumbul and to Ajmir, and were maintained till the final overthrow of the Hindoo dynasty, in A. D. 1193, by the Moosulman conquerors.

Then it became part of the Delhi empire. In Akbar's division of his territory it became a Soobah and was governed by a Viceroy. The founder of its dynasty was Saadut Khan Boorhan-ul-Mulk, originally a merchant of Khoorasan, who rose to high military command in the reign of Mahomed Shah, A. D. 1720, and attained to such power in his Province that he not only repelled the attack of a powerful enemy, but marched with a considerable force to the aid of his Royal Master when invaded by

Nadir Shah, King of Persia. He was succeeded by his nephew Budsur Jung who ruled for 15 years, and died at Fyzabad in 1754; he by Shujah-ood-Dowla, who with the son of the Emperor Alungeer II., besieged Patna and seized Allahabad in 1758, was created Wuzir by the Prince when he became emperor and was defeated by the British at the battle of Buxar in 1768. By his treaty with Clive he made over Corah and Allahabad to the Emperor. In 1774, being unable to recover from the Rohillas a sum of 40 lakhs of rupees, the price of his aid in expelling the Mahrattas from Rohilcund, Shujah-ood-dowlah obtained the help of the British troops, for whose service and protection he agreed to pay an annual sum. Shortly after this he died, on 26th January 1775, at Fyzabad, the capital of his dominions. Asaph-ood-dowlah ruled from 1775 to 1797, and changed the seat of Government from Fyzabad to Lucknow. Wajir Aly, who succeeded, reigned till 1798, when he was deposed by Saadut Ali Khan. A treaty was entered into by this Wajir, whereby he agreed to give an annual subsidy of 76 lakhs, in payment of the troops kept up for the support of his power, and to make over the fort of Allahabad to the British. As this and other conditions were not fulfilled, Wajir liquidated his debt by ceding to the Company the provinces South of the Ganges and Rohileund, yielding an estimated revenue of £1,350,000 sterling.

Saadut Ally Khan died in 1814 and was succeeded by Ghazee-ood-deen Hyder, who was elevated to the rank of King in 1819 and died in 1827. His son Naseer-ood-deen Hyder spent his days in debauchery, and died 7th July, 1837. The Queen mother attempted to wrest the Crown for her favourite son, Mounna Jan. The attempt was successfully resisted by Col. Low, the Resident; the Queen mother and her boy were sent to honourable confinement in Chunar, and Mahomed Ally Shah put on the throne. After a reign distinguished by comparative economy, he died in 1842. He was succeeded by his son Anjid Ally Shah who reigned without governing till his death in 1847, and he by his son Wajid Ally Shah, the last King. The internal history is summed up in these words ;—" Uniform extravagance and unparalleled profligacy, the grossest abuse of kingly power, and the most heartless disregard to justice, and that paternal care of his subjects, which in every country forms the bond of union between the King and his people, earnest and unceasing remonstrances from the Governor General of India, in person and through his Resident, and the callous response of dissipated monarchs."

*Revenue Collection under the Oude Government,* was chiefly from land. The proprietary of every village paid in some cases direct to the Treasury, in others through Talookdars, who have a strong

analogy to the Barons of the West. Saadut Khan collected his revenues carefully. But in time a class of Chuckladars or Collectors grew up who were not supervised. For bribes they made over to Talookdars the villages of independent holders, and so increased the power of the former. The revenues of the few Crown estates were lucrative, because they were paid direct. The simplest system under which the Zemindar paid was the Huzoor Tehseel. He paid the quota fixed by the King direct into the treasury. Out of a revenue of a million and a quarter only 9 lakhs, however, were collected in this way. The Izarah was a farming lease system, by which the king received without trouble a certain income, and the Collector was allowed full scope for exaction. If the Chuckladar and Talookdar combined, the ryots were plundered; if they were in opposition, rebellion and war prevailed. Twice, in the time of Col. Baillie and of Col. Low, the British induced the kings to try the Amanee or trust management, but twice it failed. But in 1847 it was again tried and found to be as bad as the contract plan, enriching the Collector instead of the King. The Nazim appointed to remit to the treasury, not a fixed sum, but whatever he could raise, enjoyed full power so long as he could bribe the Court people. As an instance of this. In Sooltanpore the Nazim collected 27 lakhs nominally, and accounted to the Crown for only 17, but far less found its way to Lucknow. He claimed remissions, compensation for troops, repairs of forts and fictitious expenses of all sorts. The item of *Nankar* swelled the exactions from the ryots and did not add to the coffers of the king. Originally a subsistence allowance given to the Collector, it came to be a varying percentage of remissions. There was also the Kubz system. The king gave bills on the Nazim for the pay of a regiment. The soldiery were turned loose into a district, and the receipt of the commandant was delivered to the Court as an item of revenue properly accounted for. All evidence goes to prove that, though the iniquities and aggressions of Talookdars were undoubtedly great, they were not generally oppressive to their own ryots, and were only aggressive and cruel towards others, either because they were harassed by Chuckladars, or took advantage of the utter weakness of the Government.

*Judicial Administration of the Oude Government.*—"Of Judicial Courts, there were none in Oude, save at the capital, and these were inefficient and venal." Throughout Oude, the whole Judicial establishment only numbered 61 persons, whose aggregate pay was rupees 15,672 a year. In a few of the Criminal Courts the form of justice and the law of the Koran were adhered to, but in the Civil Courts justice was openly bought and sold. The son of the High Priest presided over the highest Court of

Judicature, and tried cases without reference to the king. The profligacy of the Kotwal, or chief Police Magistrate of the city, was notorious. The favourite fiddler held a Court of Requests. In the Court of Civil Judicature for the trial of suits the final decision was given in favour of the most liberal litigant. A minor Court of Civil suits of small causes, and many others of inferior character and as grossly corrupt, were held in the city. One Court was specially held for the receipt and investigation of sepoys' petitions, received through the Resident from the soldiers of the British Army. The Nazims of Provinces had power to administer a summary kind of justice. The grossest crimes were compounded for by a simple fine. The talookdars administered a rude kind of justice to their tenants. Those of Gonda and Sultanpore enjoyed the privilege from the King of Delhi of conferring the title of Rajah. Akbar Navees or news-writers were employed by Government to report on the proceedings of each functionary. They were of course grossly corrupt, so much so that the office of "Head Newsman" was sold by contract. The remonstrances of the Resident at last put an end to this mockery of all justice. The Police, with the exception of those under European Officers on the frontier, were equally corrupt. That part of the Army not commanded by European Officers was without drill, discipline, or decent apparel, received barely Rs. 3 a month and that generally in arrears, and was kept only to overawo refractory landholders. In spite of inherent evils the regiments under Captains Bunbury, Orr, Barlow and Magness were efficient. The Paymaster's office in the Army was like the news-writer's department in the Civil police.

There were two kinds of Kubz collection the *Lakulamee* and the *Woosulee* Kubz. Under the *Lakulamee* contract, the Commandant of a regiment agreed to pay to the Government tax-gatherer a certain fixed amount, for which the estate was declared to be liable. Under the second system, the Commandant was informed of the balance due from the state, and merely pledged himself to recover whatever he could. The country was thus devastated, and women and children often sold into slavery. The size and cost of the military forces maintained by the Kings of Oudh were never fairly estimated, but they varied from 40,000 to 80,000 men. In Wajid Ali Shah's time, Colonel Sleeman placed the nominal returns of the army of all ranks at 59,000 men, at a cost of 42 lakhs of rupees, and the Civil Police at 22,000 men, involving an expenditure of nine lakhs; thus 51 lakhs or nearly one-half of the annual revenue, were expended in its actual collection, irrespective of the cost of the higher establishments.



*Disgovernement and Annexation.*—There was but one road from Cawnpore to Lucknow, but 5 permanent bridges and these dilapidated. Though the flow of wealth was into Oude, Lucknow alone was cared for. The people were oppressed and the troops starved, but the King had always secret treasures and his ministers were men of unbridled cupidity. Illegal incomes from the sale of appointments amounted to 21 lakhs a year, of which the Prime Minister alone received 13 and the Finance Minister 3. For 50 years, and more, it was the painful but important duty of each succeeding Resident to plead the cause of the ryot, and point out the excesses of the Monarch; and a pressing part of each Governor General's duties was to adjure in solemn terms the rulers of Oudh to cast aside the frivolities and follies of a voluptuous Court, and bestir themselves to the discharge of the paramount duties of Government. On the 6th February 1856 Oudh was transferred to the Company.

*Administration from Annexation to Mutiny.*—The last Resident at the Court of Lucknow was Major General Sir James Outram. On the incorporation of Oude with the British Empire, he was appointed by the Governor General the first Chief Commissioner for its affairs. In subordination to him were appointed a Judicial and a Financial Commissioner, Commissioners of Division, Deputy Commissioners, assistants and extra assistants, and the administration was to be conducted as far as possible in accordance with the system which had proved so successful in the Punjab. The country was to be divided into 4 Commissionerships, these into 5 districts, each under a Deputy Commissioner, aided by assistants and extra assistants. For the management of the Police and the administration of Criminal Justice in the cities of Lucknow and Fyzabad, two special Military Assistants were appointed; an Inspectorship of Jails was authorized, and a department of Public Works organized. Trustworthy native officials were summoned from the older provinces. The divisions were Fyzabad, Lucknow, Khyrabad and Barsitch. The Commissioners and their staff were warned that the revenue would be forestalled by an impoverished Government, and were directed to collect from the standing crop and sequestrate it if necessary to enforce payment. The land revenue was then to be settled summarily for 3 years with the parties actually in possession, without any recognition of proprietary right. The assessments were to be moderate, and were twice lowered in some cases. One per cent on the demand was levied for a road fund, and provision was made for the village police. The consideration of the claims of Talookdars and middlemen was to be made the subject of judicial trial.

The Tehseels, or sub-divisions of districts, were made to comprise villages yielding an aggregate of between 3 and 8 lakhs. Police posts were established at convenient distances; towns were protected by an efficient constabulary, and the lines of communication were carefully guarded; the landholders were called upon to give up their guns; jails, public offices, and Government dispensaries were located in such buildings as were found to be available. Transit duties were abolished, and the petty exactions of oppressive landholders were suppressed. The municipal charges for watch and ward were defrayed by the levy of a moderate octroi. As in the Punjab all land claims were heard by the Settlement Officer. Where there was proper proof, where deeds had been granted by the Nawab or King, where uninterrupted possession for 3 generations or 20 years was established, where there were moderate endowments of religious establishments or public buildings, rent-free tenure was allowed. Military grants were resumed. Special claims were decided on their merits. The establishments of the ex-regal Court were paid up and pension claims enquired into, the limits of the salt-producing districts were defined, and separate contracts given for the manufacture. The old monopoly of salt-petre was kept up, and realised Rs. 52,000 for one year. The North West Akkaree system was put in force. The Punjab system of Forest conservancy was carried out, and the same system of administering justice. A Military Police of 3 Regiments of Infantry and 9 Troops of Cavalry was organised, subordinate to a Superintendent of Police. The Civil Police was formed on the model of the older provinces. The Judicial Commissioners might pass sentence of imprisonment or transportation for life, and of death with the concurrence of the Chief Commissioner. Commissioners of divisions could imprison or transport for periods short of life, and deliver judgment in cases in the lower Court where a sentence not exceeding 9 years was awardable. The Deputy Commissioner had the powers of a Magistrate, and could sentence to three years' imprisonment. Assistant Commissioners of the 1st, 2d, and 3d class were empowered to exercise full, partial, or restricted powers, according as they had passed both, or one, or no examinations. For the disposal of petty cases of misdemeanor, and for the general convenience of the public, some of the Tehsildars in the districts were invested with limited judicial powers, to hear and decide charges of assault, abuse, and petty larceny. Prisons were established. The Punjab Civil Code was introduced, save where the *lex loci* interfered; Small Cause Courts also were established. Both

parties had the right of appeal to the highest authority. The statute of limitation was at first 12 and then reduced to 6 years.

*Occupation of Oude.*—To prevent the possibility of armed opposition, a strong force was assembled at Cawnpore; H. M.'s 32nd held Lucknow supported by artillery; and sepoy regiments with native artillery garrisoned Seetapore, Fyzabad, Sooltanpore and Gonda. But the people seemed to be favourable; the King acquiesced; he disbanded his troops and exhorted them to good behaviour. A threatened commotion in Lucknow caused by Moulvees was put down by the civil authorities, a seditious Moulvee at Fyzabad was seized, though not without bloodshed; dacoits were caught, and a noted outlaw, Fuze Ali, was destroyed. General Sir James Outram early left the Province for England, and was succeeded by Mr. C. C. Jackson; he again left in March 1857, and his place was supplied by Sir Henry Lawrence. The ex-King had gone with his suite to Calcutta, and the remnants of his Court were settled in Lucknow. District officers were everywhere busied with settlements, civil courts, and public improvements. The rebellion broke out from June to November 1857. All Oude was in arms. The exceptions were Koer Hurdeo Buksh, who helped the Futtegurh garrison and received English fugitives; Roostum Shah of Dehra, who passed on the fugitive officers from Sooltanpore to Jounpore; Ajeet Singh who delivered 42 English prisoners safely into Allahabad; Rajah Drig Bijye Singh, chieftain of the Baiswarra Rajpoots, who saved the 4 survivors of Cawnpore; and the Rajah of Bulrampore who escorted the families who fled from Gonda and Baraitch into Goruckpore. Rajah Maun Singh was the most influential of the Talookdars. He and his ancestors, as Chuckladars, acquired extensive territory; and on annexation he was dispossessed of nearly the whole. In May 1857 he was confined in Fyzabad for arrears of revenue. Speedily set free he received the officers who fled from Fyzabad into his fort of Shahgunge. At once the proprietors of villages who had received their lands acknowledged his feudal superiority. His subsequent defection to the side of the enemy, his attack on the Residency, his vacillation and hesitation finally to surrender, greatly dimmed the bright service rendered at the outset. All these have been rewarded.

*Reconquest of Oude.*—After the relief of the garrison, General Outram kept a hold on the province for 4 months at Alum Bagh. In March 1858 the Commander-in-Chief captured the rebel city. The Governor General then issued a proclamation to all landholders of Oude, demanding their submission, and declaring confiscation as the just sentence of rebellion. Mr. R.

Montgomery was appointed Chief Commissioner in April 1858. He spared no pains to make known to the people that timely submission and faithful obedience to the paramount power would stay the execution of the sentence of confiscation; and from every part of Oude, with a few exceptions, a ready response was sent to Lucknow. In some cases this was not sincere, in others we could not take advantage of it. The most loyal were intimidated by the cruelties of the rebel party from rendering us assistance. Early in April, General Sir H. Grant marched with a column towards the north-west of Lucknow, describing a circle the radius of which was about 35 miles, clearing the country as he advanced. Immediately afterwards General Walpole marched for Bareilly, in Rohilkund, passing through Sundeela, Rohya, and Palee, to Shahjehanpore. The temper of the landholders of Western Oude was not unfavourable to our rule, and civil officers were sent to receive their submission. In May General Grant defeated the Begum at Nawabgunge, in July he occupied Fyzabad, and relieved Maun Singh in Shahgunge. His advance on Sooltanpore, which was simultaneous with the movement of a force from Allahabad on Pertabgurh, at once caused civil government to be established in the districts of Duriabad, Fyzabad and Sooltanpore. In August the military police effected a lodgment in Sundeela, and outposts were established at Jubrowlee, Poorwa and Mohan. The rebels held the rest.

In March a body of Military Police had been sanctioned, to be raised by Major Bruce, C. B., of 5 cavalry and 12 infantry regiments, the former 793 and the latter 600 strong. They were recruited from Sikhs, Pasees, Jats, Afghans, Koormees, Chumars, and other sturdy men, without distinction of caste or creed. Sir John Lawrence raised the Sikh levies. The force was made efficient in 6 months, and from June to November, when Lord Clyde took the field, were engaged in 16 actions, in 6 of which they alone were opposed to the enemy. A body was attached to every column which marched through Oude. The Kupporthoola Contingent, which volunteered to the extent of 2,000, fought 6 actions and took 10 guns from the enemy.

Lord Clyde took the field in November. The Queen's Proclamation preceded all military operations. Its merciful terms, the release of upwards of 100 prisoners who had been confined for simple rebellion in the Lucknow gaol, and the steady advance of an irresistible army, speedily proved the sincerity of the offers of Government and the hopelessness of opposition. Rajah Lall Madhoo yielded first; Benee Madhoo, after a stand at Doon-

dea Khera, fled to Nepal ; finally all the rebels faltered and fled. By the close of 1858, Oude was cleared of rebellion.

In 4 months the Province, which had been a surging sea of rebellion and strife, was in a state of profound peace and safety. The people were disarmed, and the forts dismantled. Up to 12th February 1859, the following were the results :—

Cannons	...	...	...	378
Firearms	...	...	...	134,517
Swords	...	...	...	444,074
Spears	...	...	...	32,111
 Total	 ...	 ...	 ...	 611,080
Miscellaneous arms	...	...	...	364,976
 Total	 ...	 ...	 ...	 976,056

Calculating the population of Oude at the least at five, and probably eight, millions of souls, two millions may be computed as capable of bearing arms, and from every one of these one weapon at least may be expected. The work therefore must be yet carried on for years. The number of forts in Oudh is not less than 1,100, and of those 756 were entirely levelled ; the remainder are being rapidly destroyed. Around every fort, to the extent of 400 yards square, all jungle was completely cut down, and through the rest broad roads were everywhere made ; the whole will be gradually cleared and brought under cultivation.

## II. OUDE SINCE ITS FINAL SUBJUGATION.

*Judicial Police.*—In October 1858 the number of the governing members in the province was reduced ; the duties of finance fell to the Chief Commissioner, in addition to the organization and direction of the police, both military and detective, as well as the control over all public works. To the Judicial Commissioner was given the entire exercise of judicial functions, and the duty of carrying into effect the system of judicial administration, with the management of all jails. The Bombay and Madras system of police was introduced ; the executive police being separated from all connexion with the magisterial branch of administration. By making use of the military police already existing, who cost per annum Rs. 26,66,490, there was a saving on the mixed system before the mutiny of Rs. 2,12,414. It is a *sine qua non* in every landholder's tenure that he assist the state in suppressing crime. In July a body of constabulary

was given to Lucknow modelled on the London system. To increase the efficiency of the village watchmen they were placed under the Chief of Police. The changes and advantages of the reformed system are these;— \*

The military and civil rural police are separated from the judiciary, and placed under the direct superintendence of English officers specially selected for this duty.

They are controlled and disciplined on an uniform plan, and can be massed together in regiments or spread out over the country, as occasion requires.

Being purely executive, the police have nothing whatever to do with the preparation of preliminary proceedings in a case. The quasi-judicial capacity of police officers under the old system is entirely done away with, and Thannahdars are no longer required. The parties to a case are taken at once direct to the nearest Magisterial Courts.

These Courts are established at convenient distances over the country. Tehseeldars, native officials employed in the collection of the revenue, are invested with judicial powers as Deputy Magistrates, to receive and try petty criminal charges, or to investigate and report to the Magistrate's Court all serious cases of crime.

These Deputy Magistrates are responsible for the portion of the country subjected to their control, subordinate to the general superintendence of the Deputy Commissioner of the district.

The jurisdiction of each Tehseeldar acting in the capacity of a Deputy Magistrate, extends over an average area of 400 square miles.

The village police are organized, well paid, and rendered efficient, whilst the responsibility of all village communities is rigidly enforced.

*Criminal Justice.*—The Special Acts were extended to Oude. But no inhabitant was to be sentenced to capital punishment for simple rebellion ; all who had opposed Government prior to the capture of Lucknow were pardoned on condition of immediate surrender. But even then it was necessary to absolve our friends from active allegiance, and to suspend for a while severe sentence against our enemies. Thus no fixed rule could be maintained throughout, but one general principle pervaded the policy of the Chief Commissioner, viz., the most patient investigation into every individual case, and mercy to all who were guilty

of no deeds of atrocity. The total number of persons brought to trial and capitally executed, was	...	...	23
Transported ...	...	...	115
Imprisonment for less than three years ...	...	...	13
Flogged ...	...	...	27
Fined ...	...	...	47
Acquitted ...	...	...	139
Total ...	...	...	364

This leniency was attended by the best effects. The rebellion, however, resulted in lawlessness and that must be sternly put down. Infanticide, never prevented by the kings of Oude, must be stopped. To prevent serious crime judicial officers received extended powers.

*Jails.*—Instead of large jails in every district the plan was adopted of having one prison at the head quarters of every division, to hold about 400 prisoners, whether all prisoners sentenced to terms beyond six months were forwarded by the District Magistrates. They will only keep a small lock-up in the vicinity of their Courts for petty offenders whom it is impolitic to fine or flog.

*Civil Justice.*—From June 1857 to 1st January 1859 all Civil Courts were necessarily closed. The Punjab procedure and principles were adopted. Unlimited right of appeal was restricted; parties were brought face to face; Magistrates themselves took notes of cases and recorded their own decisions; native influence in the Courts was destroyed.

*Land Tax.*—On the occupation of Oude in 1856, the demand was limited to 50 per cent., where the net assets could be ascertained, which was 25 per cent. of the gross produce. Where the net assets could not be ascertained, the demand of the Oude Government, minus nankar and nuzrana, was taken as the fair demand. If the assessment still pressed heavily, Mr. M. Gubbins, the Financial Commissioner, ordered immediate remissions. Nankar was of 3 kinds. "Nankar dehee" implied village subsistence allowance, and was the portion of the profits allotted to the proprietary of the village. "Nankar ismee" was an irregular abstraction of the profits in favour of some individual proprietor, made by the Government collector, wholly without the sanction of the King's Ministers. "Nankar tankhai" was simply the dues of the Canoongoes, or other village officials, levied from the net profits of the village. In place of these the fees for a village accountant and the wages of the watchmen were put on for three

years, the salary of village accountants was fixed at three per cent. on the net profits, or at six per cent. on the rent paid to Government. The watchmen were chiefly Passeeas. The settlement was made with, not with the Talookdars, but with the village proprietors. It was very elaborate. Most of the records, however, perished in the rebellion. But the results of the arrangements entered into with each district and village were obtained from the village accountants and Government officials, and were adhered to, except where some reduction of the demand was necessary.

But a very important change was made as regards the class of persons with whom the settlement was to be made. Saadut Ally Khan strove to break up the power of the Oudh Talookdars but without success. The legitimate title of a talookdar was derived from original right in the soil. He increased his domains gradually by purchase and force. He often bought estates sold by the Nazims and Chuckladars by auction, and not always without fraud and collusion. Once his own, he ceased to oppress, while the Chuckladar never looked beyond the short period of his contract. Hence the condition of his estate has always been found to be better than those of village communities exposed to the Chuckladar, and villages often voluntarily put themselves under the neighbouring Talookdar. The power he exercised over his tenantry was in no way defined. All that was looked for by the state was the regular payment of rent. He had a large share of the criminal jurisdiction.

The rebellion shewed that the village proprietors preferred subordination to the Talookdars, to the independence which we had given them on the annexation. On this ground, and because the Talookdars, if they chose, could materially assist in the re-establishment of authority and the restoration of tranquillity, it was determined by the Governor General, that the settlement of the land revenue should be made with the Talookdars. This settlement was to be framed so as to secure the village occupants from extortion, and the tenures were to be contingent on a certain specified service to be rendered, and the assessment was to be so moderate as to leave an ample margin for all expenses incidental to the performance of such services. The duties required of all Talookdars were the active co-operation in the preservation of peace, and in the detection of crime, and rendering aid to the Government when called upon by the district officers.

This measure had the hearty concurrence of the Chief Com-

missioner. To carry it out the Governor-General's Proclamation of confiscation of all titles in Oude, with a few exceptions, sufficed. It restored the status of parties in February 1856, prior to annexation. A few forfeited their estates by not tendering their allegiance. The title to land was declared fixed and incontestable, to prevent general uneasiness and future litigation. The settlement was made thus;—assuming the net profits at 100 of which Government claims 50.

The nankar, or share of profits allowed to the village proprietors by the King, exclusive of all profits arising from the cultivation of his own peculiar lands (called seer), may be placed at 8 or 10 per cent. on the whole net profits.

The fees for accountant, watchman, and other servants, amount to 6 per cent., leaving a margin of 34 per cent., which goes to the Talookdar.

Where, however, as is often the case, the Talookday is also village proprietor, he receives his own 34 per cent. in addition to the 10 per cent. nankar.

This, taking the broad features of the system, is the principle of the talookdaree assessment.

The rent roll of the village is ascertained as it stood in the King's time, and such deductions are made as appear after investigation to be requisite.

The result was;—

## RENT ROLL OF THE PROVINCE OF OUDE.

Baratch.	Khyabab.	Fyzabad.	Districts.	Net Revenue in King's Time.		Value of Masafe Jageer Lands, according to Government Rates.	Value of Grants for religious or charitable Purposes, according to Government Rates.	Gross Government Revenue.		Number.	Number and Revenue of Talooques.
				Divisions.	Net Revenue according to the present Settlement.			Rs.	Rs.		
Lucknow	Lucknow	...	Rs. 9,98,681	Rs. 9,31,087	Rs. 1,62,339	Rs. 11,336	Rs. 10,34,812	57	Rs. 3,07,634		
	Durriabad	...	13,38,726	9,92,335	22,722	18,851	10,33,908	69	5,30,349		
	Oonao	...	11,15,361	11,23,738	17,603	4,189	11,45,050	41	3,17,205		
	Total	-	34,52,771	30,37,220	1,42,771	34,676	32,14,670	170	11,55,188		
Sultanpore	Sultanpore	...	11,61,958	9,05,746	68,233	2,563	9,70,542	27	6,20,989		
	Fyzabad	...	11,10,391	11,32,397	39,240	6,303	11,77,919	28	7,61,811		
	Salone	...	11,01,606	11,38,940	50,615	10,577	12,06,132	34	10,30,723		
	Total	...	33,75,952	31,77,083	1,58,037	25,443	33,01,623	89	23,31,527		
Mohumdee	Mullaon	...	11,61,361	11,92,504	22,331	3,141	12,18,069	63	1,77,128		
	Seetapore	...	13,57,571	9,41,982	31,506	3,289	9,76,822	171	7,12,345		
	Mohumdee	...	5,00,000	1,21,160	...	...	1,21,160	72	1,15,617		
	Total	...	33,18,935	23,55,706	53,051	6,421	26,10,081	307	13,05,090		
Baraitch	Baraitch	...	8,59,951	5,89,616	19,317	3,661	6,12,594	42	5,68,539		
	Gonda	...	12,70,879	9,47,350	10,160	19,375	9,76,835	52	5,75,000		
	Mullapore	...	3,63,330	2,57,380	9,250	1,800	2,68,120	36	2,90,020		
	Total	...	24,94,160	17,94,346	38,727	24,836	18,57,903	130	14,33,559		
	Grand Total		1,20,41,818	1,05,61,355	3,93,552	91,374	1,10,49,293	696	92,25,334		

The net revenues derived from the land tax by the King of Oudh, according to the returns for the year prior to annexation, were Rs. 1,29,41,818, exclusive of the extra fees and cesses which were realized by the Collectors and Court favourites, and increased the burden of the tax to Rs. 1,68,94,196. The settlement now concluded has fixed the Government demand at Rs. 1,05,64,355, exclusive of jagheer and rent-free tenures. The number of Talookdars in Oudh is upwards of 690, and they hold lands paying Rs. 62,25,364 in revenue to Government, or 58 per cent. of the whole rent roll. The Talookdars have the privilege of paying their quota direct to the British district officer and not to the native Tehseeldar. That assessment is light is evident from the speedy liquidation of the Government demand.

*Talookdaree System of Oude.*—It has been shewn that the superiority and influence of the Talookdars form a necessary element in the social constitution of the Province. Their influence must be directed to their support of the Government. In most cases they may have abused their power in the past, but the sole cause of it was the weakness of the native rule. Even with the strictest supervision, we secure only a degree of efficiency in our own Courts; the native officials are still corrupt. The same power which restrains them within certain bounds can be brought to bear with far greater effect on the landlords of the soil, who have some regard for public opinion, and whose interests are identical with those of the people. The careful enquiries of the Chief Commissioner, who had if anything a prejudice against the Talookdars, resulted in the conviction that their cruelty and oppression towards their tenants have been greatly exaggerated; very many treated their tenants leniently and well, and administered a rude kind of justice with rectitude and care. They are, held in respect, and wield a great power not the result of fear; their estates are in good order, the crops luxuriant, and abundance and comfort pervade the whole province. Even Rajah Man Singh, represented as the most rapacious, was so only as a Chuckladar; he was careful of his own villages.

Government spared no pains to bring to such perfection the administration of justice, that its manifest superiority over all former institutions should commend itself to the affections of the people. Yet out of the midst of mutiny, rebellion, and the tumult of war, out of unmeasured and unfounded accusations against the Government, one cry of the unpopularity of our

Civil Administration has been raised, and it demands to be deeply inquired into. The causes may be various, but one fact is clear;—the native officials, unsupported by our authority, have neither character nor influence. Now many of the Talookdars have exercised unlimited powers with some degree of moderation and justice, and they should be enlisted on our side by being released from the galling interference of native officials, and by having continued to them some control over the tenantry subject to European supervision. All could not at once be entrusted with this power, but some share in the executive might be given to Raja Dirgbyjee Sing, of Morarmow; the Rajah of Bulrampoor; Roostum Sah of Dehra; Hurdeo Bux of Kutgaree; Ajeet Singh, Hunwunt Singh, and Rughoonath Sing, names ever memorable for fidelity and humane hospitality; and, perhaps, to one or two others whose political importance prevents their exclusion.

*Salt, Abkarry and Ferry.*—The amount of salt produced throughout Oude is not over-estimated at 1,500,000 maunds, consumed in the province and largely exported to the N. W. Provinces and to Nepaul. An excise of one rupee a maund would yield 15 lakhs annually. A higher rate would prevent production and encourage smuggling. The plan proposed is to receive all the salt into a Goverment store from which the traders will carry it away after paying the duty. The manufacturers will not undertake the work on any other terms.

The soil is favourable to opium. The culture of the poppy has been declared free, but the opium extract intended for export is to be carried under a pass from the district officer to the nearest Government storehouses in the Azimgurh or Benares districts. Opium required for home consumption is subjected to the retail laws of the Abkaree department.

Spirituous liquors and other drugs are subject to excise, and tolls are levied on the ferries of the river Gogra. For the present, the ferries on the river Goomtee are exempt from tolls. The returns for the ensuing year are estimated at

Rupees.

Salt ... ..	10,00,000, with prospective increase to 15 lakhs.
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Excise collections ... 5,17,500

Forests ... ... 2,00,000 per annum.

Such are the sources of Revenue.

*Pensions.*—On the annexation we pledged ourselves to the discharge of all just liabilities. The final sanction of the Government of the result of the necessary investigations, was not received before the outbreak. When the Chief Commissioner assumed charge of the Province in April 1858 the British Government stood in a different relation towards the people of Oudh to that which existed formerly; then we received the Crown by transfer, now we had secured it by conquest. It would have been just to recognise no claim to pension on the part of those who had fought against the paramount power. But a merciful policy prevailed. Assuming that rebellion on the part of recent, was different from that of older subjects, it was resolved to treat the claims of pensioners who rendered timely submission with leniency. After a fresh investigation of claims amounting to 1,274, the Chief Commissioner decided in favour of 1,048. Of the 226 rejected cases the majority were household servants previously paid up, and the relatives of deceased pensioners whom the loss of records tempted to impose on the liberality of the State. Only 11 were rejected for obstinate rebellion. But for the period between May 1857 and April 1858 when no revenue came in, no pensions were paid.

The following table shows the classification of the pensions :—

No.	Description of Pensions.	Number of Cases Investigated.	Number of Claims rejected.	Estimated monthly Amount of the Pension Claims.
1	Military ... ... ...	14	9	325 0 0
2	Civil ... ... ...	18	4	1,883 12 11
3	Household ... ...	330	55	9,647 12 6
4	State ... ... ...	119	35	4,147 12 11
5	Family Provision to Members of Family of former Rulers, &c. ...	540	73	51,070 10 1
6	Royal Ladies ... ...	57	8	24,504 0 0
7	Endowments ... ...	1	1	... ..
8	Charitable Grants, and	189	41	2,254 13 0
9	Holy Men ... ...			
Total ... ...		1,274	226	93,879 13 5
Estimated annual Amount of the Oudh Pensions		...	...	Estimated Monthly Amount of the Pension List.
				15,547 0 7
				11,26,558 0 0

The provision for the ex-King and family will be decided by the Governor General.

The class of Wuseeka pensions is peculiar to Oude. When the kings of Oude contributed to British loans, they would not, according to the law of the Koran which forbids usury, take interest. The interest was accordingly paid in the form of monthly stipends to certain members of the Lucknow court, and their heirs for ever. In process of time the number of Wuseekadars greatly multiplied and each pension proportionately decreased. It was ruled that resumption of a Wuseeka was only to take place where the holder had been judicially condemned to suffer confiscation of all his effects. But the loss of records made a fresh enquiry into each claim necessary. One Wuseeka fund has a historic interest from the Fourth Article of charges against Warren Hastings. The Buhoo Begum, Princess of Oude, widow of Nawab Shuja-ood-dowla, made in 1808 a will, in which she bequeathed the bulk of her fortune to the British Government, reserving the sum of 10,000 rupees per annum, for the current expenses of her mausoleum at Fyzabad. We renounced the benefits of this bequest on her death in 1815. The whole estate was made over to the Nawab Wuzeer on condition of his lodging with the British Government a sum of money the interest of which would cover the bequests made by the Begum, and guarantee the payment in perpetuity of certain pensions to be enjoyed by her Highness's brothers and others. The number of pensioners on this Princess's bounty now amount to 1,245, amongst whom the sum of 3,57,706 rupees, 3 annas, is yearly distributed in monthly instalments.

The various Wuseeka funds are seen in the following form :—

No.	Designation of Wuseekas.	Original Amount of the Loan.	By whom Given.	Amount of the Interest Payments.	Amount of Principal paid subsequently and paid off.	No. of Cases investigated and reported.	Monthly Amount of Claims which have been re- ported.
1	First loan, obtain- ed by the Marquis of Hastings in 1814, to A. D. 1,08,50,000 Rs.	One crore, after- wards augmented to 1,08,50,000 Rs.	Ghazeooddeen Hyder, first King cent. R. 6,51,000 per annum.	Interest at 6 per cent.	70½ lacs	177	7,803 4 10
2	Second loan, ob- tained during Ni- palese war.	Two crores	Ditto	Interest at 5 per cent.	3 crores, with in- terest at 5 per cent.	Not paid off	After the war, the Terai lands, bordering on Oudh, taken from Nizam, were offered to Oudh and accepted in repayment of this se- cond loan, together with the British dis- trict of Khyreegurh. 29,298 2 64
3	Third loan	One crore	Ditto	Do. R. 41,666-10-8 monthly.	Nothing paid off — a perpetual loan.	151	...
4	Fourth loan, given in May 1826.— a temporary loan.	Fifty lacs	Ditto	Interest at 5 per cent.	With all interest at 5 per cent.	...	...
5	Fifth loan, given 1830.	Sixty-two lacs.	Nusseerooddeen Hyder, second King of Oudh.	Ditto, Rs. 20,000 monthly.	Nothing repaid.	4	10,000 0 0
6	Sixth loan, given in November 1838.	Forty thousand lacs.	Mahomed Aly Shah, third King of Oudh.	Interest at 4 per cent. Ra. 5,666 10	As parties died without issue, the principal, calculated on their interest payments, reverted to the King of Oudh.	51	5,127 0 0
7	Wuseek Amanut teen thousand Bubo Begum.	Fifty-six lacs, six teen thousand, Af. Hyder.	Ghazeooddeean cent. Ra. 29,575 8 3 but Ra. 8,359 5 6 monthly.	Interest at 6 per cent.	Nothing repaid but Ra. 8,359 5 6 credited to Govt.	586	24,975 8 3
Total monthly amount of all Wuseekas				...	...	61,197 16 7	...
Total annual amount of all Wuseekas				...	...	9,74,375 11 0	...

The total amount thus annually disbursed by the Government in provinces, Mysore, and the Bangalore Region, is approximately round number Rs. 21,00,000. The financial Government in this matter has helped in the pacification of Oude. Revenues collections into rent free territories could not yet be attempted. They were mostly decided before the rebellion.

<b>Finance.</b>	The total of ordinary receipts was
Land tax	1,05,64,350
Excise on salt, liquor, and drugs	18,00,000
Precious receipts, stamps, &c.	3,00,000
<b>Total</b>	<b>Rs. 1,26,64,350</b>

The stamps, fees, sales of forest timber, revenue, &c. cannot now be correctly estimated.

As to expenditure;—the annual cost of civil establishments is 23 lakhs, and for military police 27 lakhs, for the great military roads a grant of Rs. 10,14,000 was sanctioned, for district roads 1 lakh. The cost for public buildings, to be spread over a cycle of years, is ranged thus:—

Court houses	...	...	...	2,00,000
Jails	...	...	...	70,000
Police posts	...	...	...	1,00,000
Tehseel buildings	...	...	...	2,50,000
Dispensaries	...	...	...	50,000
				<b>Rs. 6,70,000</b>

Calculating that these buildings will last for only 10 years, and allowing a large margin for annual repairs, the yearly drain would not exceed Rs. 80,000. The pensions will gradually diminish. The total cost is Rs. 11,26,000 and by treaty the ex-King is allowed 12 lakhs a year. The miscellaneous disbursements in the stamp and postal departments for post, tele, &c., may be estimated at 1,50,000.

The total disbursements under all heads of strictly provincial expenditure amount to Rs. 75,56,000, leaving a balance of Rs. 51,08,000 out of the annual income of Rs. 1,26,64,000 to be allotted to the general Imperial revenues.

*Finance and General Expenditure.—The Interim Budget.*

Anderson was appointed Chief Engineer in July 1856, and the Province was separated into three divisions. From the annexation to the revolt in May 1857, the chief expense for the accommodation of troops was in Lucknow. Repairs were executed on the old roads from Lucknow to Cawnpore, to Fyzabad, and to Seetapore. New lines from Fyzabad and Byram Ghat to Lucknow were planned. Captain Hutchinson completed, as far as Lucknow, the surveys for a line of military road, traversing the Province east and west, to connect Rohilound with Benares, thus avoiding the passage of the Ganges. A survey of the country was commenced with a view to the introduction of irrigation canals. The result proved that irrigation canals on any grand scale are not required in Oude. Some civil buildings in Lucknow were repaired, and plans drawn up for the construction of others on a uniform scale. The following was the expenditure from the recapture of Lucknow in March to the end of 1858 :

Accommodation for troops		Rs. 1,20,695-1-10
Roads	...	40,807-14-1
Civil Buildings	...	5,189-0-11
Establishment and current expenses	...	72,521-15-4
Contingencies	...	6,453-13-4
Total	Rs.	2,45,667-13-6

When we took the city the attentions and labours of the engineers were more urgently directed to the temporary accommodation of troops, the erection of fortified posts, the clearance of ruins, and conservancy of the city, the construction of roads and bridges and to the temporary accommodation of troops. General Sir R. Napier's plans for the military occupation of Lucknow were carried out. They included the establishment of a number of military posts extending along the river or north front of the city of Lucknow, from Dilkoosha on the extreme east, to Moosah Bagh on the extreme west. The principal positions proposed were the Dilkoosha House, the Begum's Kotee, the Motee Muhal, the Kaisur Bagh Palace, the Chuttur Munzil and Furrud Buksh Palaces, the Residency, the Iron Bridge, the Stone Bridge, Hosseinabad, Ali Nukee Khan's River House, and the Moosah Bagh. The positions at the Stone Bridge, the Iron Bridge, and Residency were to be converted into strong fortified posts for the purpose of commanding the bridges across the Goomtee and overawing the city. The remainder were in a few days placed in a defensible state.

The Stone Bridge Post has an interior perimeta of  $1\frac{1}{2}$  miles.

It includes the ancient Muchi Bowan Palace. In time of need it could accommodate a force of 3,000 men and might be defended by 500 British troops against any but a well-appointed army. In it will be established a second class arsenal, &c. The total cost will be Rs. 4,00,000. The expenditure to the end of 1858 was Rs. 2,13,425.

The Iron Bridge Post is a link between the Muchi Bhawun and Residency positions. It is a small irregular fort for a maximum garrison of 200 men, but it could be well defended by a much smaller number. It was completed in September. The Residency fort was not commenced. The expenditure for fortified posts was

Stone Bridge Fort	...	...	2,13,425	12	0
Iron do.	do.	...	33,438	13	7
Minor Posts	...	...	20,592	4	8

Total ... Rs. 2,67,456 14 3

Military principles guided the extent of the demolition of the city; the rebels' fortifications were levelled. Great care was taken to spare buildings of an ornamental character. The demolitions were effected at a cost of Rs. 2,00,172-7-9. They have improved the beauty and the health of the city.

Three military roads were opened out, each 150 feet broad. With the old Cawnpore road they divide the city into 5 sections, and form 4 lines of communication open to artillery fire. Their directions are

From Fort to Charbagh Bridge, length ...  $2\frac{1}{2}$  miles.

From do. to Telku Torah, do. ...  $2\frac{1}{2}$  "

From do. to Moosah Bagh, do. ... 3 "

A fourth,  $1\frac{1}{2}$  miles long, connects Alee Nuckee Khan's house with the Moosah Bagh. The great road on the north side from the Dilkooshah to Hosseinabad was, with others, repaired. A conservancy commission of English officers undertook the drainage and sewerage of Lucknow. The total expenditure from general revenues and local funds was Rs. 13,34,881-12-7. Of that sum Rs. 11,05,290-4-1 was expended at Lucknow.

A church in the civil lines, at a cost of Rs. 30,000, was sanctioned. A proper church will be erected in the new cantonments. The cost of all local improvements was defrayed from the large municipal funds of Lucknow. In addition to octroi, the rent of escheated land and houses, and the tax on all substantial houses, a penal contribution was levied with discrimination. From these sources the sum of Rs. 4,15,663-13-5, was realised from annexation up to 31st January 1859. The penal contribution amounted to Rs. 1,69,234. The future income is thus estimated:—

Ostroi	...	...	...	...	2,00,000
House Tax	...	...	...	...	60,000
Garden Lands	...	...	...	...	20,000
Nuzool	...	...	...	...	10,000
				Total	... 2,90,000

The British Force will be distributed as follows :—

Lucknow	...	...	3	Batteries of Light Field Artillery.
			2	Companies of Reserve Artillery.
			1	Company of Engineers.
			1	Regiment of European Cavalry.
			1	Regiment Native Cavalry.
			2½	Regiments European Infantry.
			1	Regiment Native Infantry.
			1	Battery of Light Field Artillery.
			1	Company of Reserve Artillery.
Seetapore	...	...	1	Squadron European Cavalry.
			1	Regiment Native Cavalry.
			1½	Regiments of European Infantry.
			1	Regiment of Native Infantry.
			1	Battery of Light Field Artillery.
			1	Reserve Company of Artillery.
Fyzabad	...	...	2	Squadrons European Cavalry.
			1	Regiment Native Cavalry.
			2	Regiments of European Infantry.
			1	Regiment of Native Infantry.
			1	Battery of Light Field Artillery.
			1	Reserve Company of Artillery.
Roy Bareilly	...	...	1	Squadron of Dragoons.
			1	Regiment of Native Cavalry.
			1½	Regiments European Infantry.
			1	Regiment Native Infantry.
			1	Battery of Light Field Artillery.
Sultanpore	...	...	1	Regiment Native Cavalry.
			1	Regiment European Infantry.
			1	Regiment Native Infantry.
			1	Battery of Light Field Artillery.
			1	Reserve Company of Artillery.
Trans-Gogra Gonda	...	...	2	Regiments of Native Cavalry.
			1	Regiment of European Infantry.
			2	Regiments of Native Infantry.
			8	Batteries of Light Field Artillery.
			6	Companies of Reserve Artillery.
			1	Company of Engineers.
Total	...	...	2	Regiments of Dragoons (4 squadrons each).
			7	Regiments of Native Cavalry.
			9	Regiments of European Infantry.
			7	Regiments of Native Infantry.

For each of these cantonments, sites have been selected, and the erection of barracks is everywhere rapidly progressing.

*Roads.*—The Supreme Government sanctioned a grant of Rs. 1,114,000 for the repair of the roads from Lucknow to Fyzabad.

“ Bhyramghat on the river Gogra.

“ Seetapore, Roy Bareilly, Sultanpore.

Fyzabad, as far as the Jounpore boundary, en route to Allahabad, and a grant of one lakh for minor roads to be constructed by each Deputy Commissioner on a uniform system. The survey for a Railway between Cawnpore and Lucknow was completed, when the Engineer, Mr. Garrett, fell at Cawnpore. His labours were not, however, lost. The next important line should connect Lucknow with Fyzabad. If steamers were employed between Fyzabad and Calcutta, the whole trade of Oude would pass along this route in preference to the Ganges. If continued to Bareilly hereafter, the trade of Upper India would reach Bengal by a direct route. The length from Lucknow to Fyzabad is only 74 miles. A more extensive line from Benares to Bareilly would be desirable.

*Claims to Compensation.*—The first class of claims, which were undoubtedly, amounted to Rs. 7,38,052. In the second class were claims which were susceptible of adjustment, but not supported by vouchers, amounting to Rs. 14,36,026. The remaining claims were rejected as wholly unproved, amounting to Rs. 89,10,050.

In conclusion the Chief Commissioner expresses his belief that in a very short period of time the prosperity of the people and the real resources of the country will be developed by the steady advance of the present system of administration in Oudh. He recommends his subordinates to the favourable notice of the supreme Government. They, throughout a season of trial and difficulty, uniformly exhibited fortitude and unwearying energy in the discharge of their duty.

The Governor General, in a minute on Mr. Montgomery's Report, dated 22nd April 1859, refers to some remarks in the Secretary of State's despatch of 9th December 1858, which animadverted on his own despatches of 17th June and 4th July addressed to the Court of Directors regarding his Oude Policy and Proclamation of Confiscation. He shews from Mr. Montgomery's report that that Proclamation was not in any sense cancelled, that confiscation was not only adopted, but put in force; that the present tenure of land in Oudh, and the conditions attached thereto, mainly rest upon it; and that the issuing of the sentence of confiscation was not merely a menace, where there was persistence in hostility. He accords to Mr. Montgomery alone the responsibility of carrying out the policy prescribed in Oudh, and the great credit of having done this with eminent success.

## KUMAON IRON WORKS.

*India Records, No. XXVI.*

This report is drawn up by Mr. Sowerby. In 1854 Government employed Mr. Henwood and three workmen to investigate the iron deposits of the Hills. In May 1855, Mr. Sowerby was sent up to Kumaon by the East Indian Railway to ascertain what prospects there were of obtaining iron in the Himalayas. He found that a controversy was raging between Mr. Henwood and Lieutenant Colonel Drummond, whose attention had been first called to the value of the iron deposits by the natives, the former asserting that the ore was utterly worthless. Mr. Henwood soon left the country. Although accurate surveys had been made of the whole of the Kumaon Bhabur by Lieutenant Vanrenen and Burgess from 1851 to 1853, the iron was not recognised.

The Bhabur deposits are unlike those in other parts of the world. The enclosing rocks are yellow micaceous sandstones similar to those in the Cleveland Hills, but quite free from the peculiar fossils of that locality. They also resemble the sandstones which are found accompanying the Lancashire Hematites; but the Bhabur deposits are certainly not Hematite ores, though at Dechouree, Beejapore, and on the Kossilla, the ore has a very red Hematitic appearance. They will be found to belong to the Permian formation, similar deposits being found in that formation in Austria near Brünn. This lies immediately above the coal formation, and workable coal is frequently found in it as in Austria; in the Bhabur thin seams of coal have already been noticed. Extensive Iron Works can be carried on with wood fuel, and the dense forests with their rapid reproduction in the Bhabur of Kumaon and Gurwhal, will not be seriously affected for years to come.

The belief that the art of smelting iron was first brought from India has no foundation. Each country has its own plan. The mode adopted in Upper India is a low hearth about two feet diameter, and leather bags for bellows; in Southern India they use a small cupola of clay about three feet high; in Africa a hole in the ground answers the purpose; and in all cases the mode adopted is just such as an accidental combination of circumstances would suggest to a rude and primitive race. The few and feeble attempts to make iron in India since the introduction of railways are astonishing. Messrs. Mackey and Co. have furnaces at Beerbboom; Messrs. Hunt and Co. made some attempts

at Jubbulpore ; the Bengal Coal Company, after getting out machinery, have let it rust on the ground at Raneegunge. The rapid denudation of the forests around the works interfered with the success of the Madras Company. Apart from that any practical man would have pronounced their success problematical. The climate is too hot for European skilled workmen ; the iron ore, rich as it seems to an amateur, "gobs" the furnaces from its mixture with refractory substances ; inferior limestone has to be used ; steam power generated by wood alone can be used. The iron made is chiefly forge pigs and unfit for castings, it cannot be worked upon the spot for want of skilled labour, which the climate prohibits being imported, and when sent to England it is rather regarded as a curiosity than as an article of commerce, and realises only a low price.

In respect to labour, capital, and a market for the produce the Kumaon works have many advantages. The Hill-men, though they remain in the Bhabur only 6 months of the year, are mostly strong and well-conducted, and their places can be supplied by the men of the adjacent towns who surpass them in skill. A colony of skilled workmen from Europe could be established in Kumaon better than in any other part of India. The water power, overlooked by Lieutenant Colonel Strachey and Mr. David Smith in their reports, is capable of being used almost exclusively.

After a detailed description of the chief English and Continental Iron Works, Mr. Sowerby describes those of India.

I. *The Madras Iron Works.*—The Company have a monopoly of the whole Presidency. Their works are established at Porto Novo, Beypore, Poolamputtee and Trinomallee. The blast furnace at Poolamputtee is on the river Cavery, 35 miles north west of Salem, and was commenced two years ago. The iron ore is a rich magnetic oxide of iron, very heavy and massive, yielding on an average 60 per cent. of metallic iron ; much of it would yield 73 per cent., being a pure black magnetic oxide of iron. It costs about Rs. 6 per ton delivered on to the Works, having to be brought from a distance of 25 miles in the direction of Salem where it occurs in great quantities lying on the ground, and is dug out of a high hill side. The iron ore is mixed with quartz, which is a most refractory material in the blast furnace, and is with difficulty separated. The limestone is brought from the same locality as the iron ore, and costs Rs. 1-8 per ton, but it is of a very inferior quality and hardly fit for flux ; shell lime has been used at some of the other Works. The charcoal is obtained from dense jungles 25 miles up the Cavery. It costs Rs. 6 a ton delivered at the works, and the wood Rs. 1-12 a ton. The Mimosa is used to make charcoal. The supply is uncertain.

The average yield of the furnace is 5 tons a day. The iron varies in quality ; the best or grey iron is made into chairs and sold to the Madras Railway which passes within 25 miles, at Rs. 75 a ton. Boys mould and cast at Rs. 2 a ton. The total cost is Rs. 30 the ton of pig-metal, including every item of expense. The pig-iron is sent down the Cavery to Porto Novo and thence to Madras for shipment to England. The works should be removed to Salem. There is nothing but native labour. Women and children work the blast furnace, or carry the iron ore and charcoal to the top of it, at 1 anna a day. The fall of the river is too small to afford water power.

The works at Beypore have not succeeded, and the valuable machinery is now for sale. The German workmen who were brought out from Styria, returned. They said it was too hot for them to work, and it was impossible to get naked savages to do such works as puddling ; if they left them for only a few minutes they neglected the furnace and all went wrong, not unfrequently they would fall asleep in front of the furnace. The Germans are very inferior to English workmen. The raw materials, the climate, the roads, the fuel were all bad at Beypore. The Trinomalee work consists of one blast furnace, similar to that at Poolamputtee, and working with the same kind of iron ore and other materials, but using cold blast. The Porto Novo works were the first begun, under the auspices of the late Mr. Heath, who was more enthusiastic than practical. They are too difficult of access to be profitable. The works have from first to last been used for turning out castings required in the Presidency, and a portion of pig has been sent to England to be converted into steel. A large quantity of it was used in the construction of the Britannia Tubular Bridge, and the Menai Bridge. The iron is very good and would always command a good price, were the supply regular, but it arrives in England by piecemeal, and is not therefore taken at its full value : it rarely realises more than about from £7-10 to £9 per ton, whilst Ulverstone iron, which is no better if as good, brings £10 to £12 per ton, the reason being that the supply is not regular. Were the Railway Company to undertake the works, and supply themselves with tools, implements and castings, there might be a profit. The Iron Company have never declared a dividend. The cost of management alone was 10 shillings a ton. The native forges make excellent shell, particularly that at Anachelam at Salem. They work iron very extensively. German forges should be introduced. The German Missionary at Salem has erected such a forge and a small tilt hammer worked by manual labour from which he can turn out 14 lbs. of iron per heat ; the iron ore is

rich and well adapted to such a process, and the process is well adapted for the natives.

*Lower Bengal Works.*—Mr. Sowerby reports on the specimens of iron ore he saw in Lower Bengal as unquestionably very rich in metal but very refractory. The climate and the bad coal are against success there, though Mr. David Smith gave a favourable report on the subject.

*Kumaon Iron Works.*—If an English Company wish to embark capital in mining and manufacturing iron in Upper India, that capital should not be less than what would be sufficient to erect works capable of turning out 50,000 tons of manufactured iron annually. This would require an extent of land equal to 500 square miles or 25 miles in length and 20 miles in width. This is just half the size of the large works in England, and would require a capital of from £140,000 to £150,000. In 1857, the Home Authorities objected to the proposed North of India Iron Company on account of their small capital. If private speculators enter themselves on the undertaking, the extent of the works need not exceed 10,000 tons annually, and should not be less than 5,000 tons to be of any practical benefit; this would require 100 square miles of territory, or about 10 miles each way, and would require a capital of about £30,000 sterling, including sufficient for floating capital. The length of time for which leases should be granted for a large concern should not be less than 50 years, to enable the Company to get an ample return for the capital embarked, and in no case should they exceed 99 years. For a small private concern a lease of not less than 21 years nor greater than 50 years might be granted.

There are two distinct sets of iron mines in Kumaon; one very rich within the hills, and one in the Bhabur. Tracts of both should be included in each grant. The lessees should have exclusive use of the forests, but should be bound to keep them up by planting. At present they are very dense. Whether large capitalists in England will be found willing to come forward without a guarantee is uncertain; even with the most favourable conditions, such a guarantee was asked for in 1856, but was ultimately refused, partly owing to a petition got up to the Board of Control by the English Iron Masters who alleged that it was against all the established principles of trade. Capitalists might however be induced to embark in the enterprise if the fee simple of the land was assigned to them at a fair upset price as in the colonies; at present the land is a useless, pestilential jungle.

Assuming that the orders of the Court in their letter of instructions dated 11th August 1857, to establish iron works

afterwards to be handed over to English capitalists when the undertaking is proved to be profitable, are to be carried out, Mr. Sowerby enters into a detailed scheme. The tract assigned for the works extends from the Ramgunga river on the westward, to the Boer river on the eastward, and from the boundaries of the Province on the south, and the Ramgunga and Kossilla on the northward. A tract of land extending from the Boer river to a point 7 miles to the eastward was assigned to Messrs. Davis and Co. The Government district is 60 miles in length and 10 miles on the average in width, or 500 square miles, and it will be sufficient to provide fuel for making from 50,000 to 60,000 tons of finished or manufactured iron annually. In 1856-57 certain capitalists offered to carry out the iron works with a capital of £150,000, to be spread over a period of 6 years. If Government do this now, £25,000 may be employed thus on the preliminary works:—

*Summary of an Estimate for Works capable of turning out 12,000 tons of pig-iron annually, and converting 3,000 tons into bars, and the remainder into castings.*

Blast Furnaces capable of making 12,000 tons of pig-iron per year	...	Rs. 1,20,000
Forge-works capable of turning out 10 tons daily for 300 days, including riddle ovens, charcoal fires, rolling mills, tilt hammers, and fitting shop	...	50,000
Tools and Implements including a portable steam-engine	...	15,000
Foundry and cupolas	...	8,000
Roads and Tramroads	...	5,000
Houses for European workmen	...	10,000
Houses for native workmen	...	5,000
Passage-money for 20 Europeans with pay till arrival on Works	...	30,000
Charcoal Kilns and Sheds	...	2,400
		Rs. 2,45,400
Add 5 per cent. for management during erection of Works	...	12,270
Total,	...	Rs. 2,57,670

Of this £2,388-10 has been already expended in England for

the purchase of machinery, and the expense of landing it in Kumaon may be estimated at as much more, or a total of Rs. 47,770:—

*Statement of Expenditure on Works.*

NAMES OF WORKS.	Expended in Ma-chinery, &c., in Eng-land includ-ing carriages.	To be expended on Works in this country.	Total as per ori-ginal Estimate.
	Rs.	Rs.	Rs.
Blast Furnaces ... ... ...	7,540	1,12,460	1,20,000
Forge-works ... ... ...	21,092	28,908	50,000
Tools ... ... ...	14,688	312	15,000
Foundry and Cupolas ... ...	3,202	4,798	8,000
Roads and Trams ... ...	1,248	3,752	5,000
Houses ... ... ...	0	15,000	15,000
Charcoal Sheds ... ...	0	2,400	2,400
Passage-money ... ...	9,000	21,000	30,000
Superintendence ... ...	0	12,270	12,270
 Total... ... ...	56,770	2,00,900	2,57,670

To carry out and conduct these Works it will require at least 60 skilled workmen, fully one-third of whom must be Europeans in the outset, namely:

One Superintendent Engineer, at a salary of £ 1,200	
One Assistant do. do. ... .. "	600
One Furnace Manager, at ... .. "	600
Six Furnace-keepers, at £250 ... .. "	1,500
One Forge Manager, at ... .. "	600
Six Puddlers and forge-men, at £250 each... .. "	1,500
One Foundry Manager, at ... .. "	300
One Assistant and Foundry manal ... .. "	250
One Millwright and Fitting-shop Manager, at .. "	300
One Charcoal Manager, at ... .. "	200

Total annual expense of European Work- }  
men and Managers ... } „ 6,750

The same managers would however be able to manage double or even treble the extent of works. There are already 17 Europeans in India or on their way, the other three may be obtained in India. The plan embraces large works within the Bhabur, and small branch works within the Hills at 4 different localities, costing :—

No.	SUMMARY.		
1.	Works at Dechouree in the Bhabur	1,22,704	
2.	Do. at the Kossilla	66,848	
3.	Do. at Ramgurh in the hills	14,962	
4.	Do. at Kyrna ... ..	11,962	
	Total amount for Works ...	2,16,476	
	Add to this for passage-money as per original estimate ... ..	30,000	
	5 per cent. for management ... ..	12,270	
		2,58,746	
	Original estimate ... .	2,50,000	
	Excess, Rs. ...	8,746	

The whole, it is expected, will be completed and in active operation within a period of about 18 months, or in two cold seasons from the commencement. The Blast Furnaces will be capable of turning out 40 tons of pig-iron per week each, or 5 tons 14 cwt daily. The estimated cost of pig-iron from the

2 blast furnaces of Dechouree, making 80 tons per week is a little over Rs. 20 per ton. The estimated cost of making bar-iron at the forge-works on a weekly production of 48 tons, is about Rs. 61 a ton. The cost of producing castings will vary from Rs. 10 to Rs. 25 per ton according to their nature: the cost of making chairs or rails will not exceed Rs. 10 per ton when the patterns are once made, which will be of iron when there is a large number required. The demand for pig-iron does not exceed 2,000 tons annually in the North West. The E. I. Railway Co. have contracted already for all their iron in England. The works then should be adapted for the manufacture of wrought and cast-iron rails as suggested by the north of India Tramroad Company. Making bar-iron is a difficult and expensive process. Making cast iron is easy; the quantity of skilled labour required is 1·6 per cent. for cast-iron, and between 16 and 17 per cent. for bar-iron. Cast-iron rails will do admirably for tram-roads. If made of good iron and sound castings they wear much longer than wrought iron rails. They have been used on many English Railways, as on the Stockton and Darlington. The cost of a cast-iron permanent way from the Kumaon works, is Rs. 13,900 per mile less than if made of English iron, and there is the still greater advantage of saving of time.

The Appendix contains the results of a series of assays of ores from the Kumaon iron deposits, by Messrs. Johnson and Matthey, London. They produced the following percentage of good pig-iron:—

No.	1. Ganges	...	...	...	55½
"	2. Ganges	...	...	...	47½
"	3. Mundil	...	...	...	8
"	4. Kotdwarra	...	...	...	34½
"	5. Kotree	...	...	...	25
"	6. Ramgunga	...	...	...	30
"	7. Koilla	...	...	...	45½
"	8. "	...	...	...	29½
"	9. "	...	...	...	28
"	10. Kitcheree	...	...	...	17½
"	11. Dubka,	...	...	...	21
"	12. Boer,	...	...	...	6½

No. 1 and 2 were from the Eastern bank of the Ganges, a little above Hurdwar.

**THE RANEEGUNGE COAL FIELD.**

1859.

Mr. Oldham, the Superintendent of the Geological Survey of India, was directed on the 3rd January 1859 by the Government of India, to report on the present state and out-turn of the Raneegunge Coal Field, with especial reference to the proposal for an extension of the existing line of Railway. He accordingly detached 2 of his best assistants, and as the season was already far advanced their attention was confined to the portion north of the Damooda, as bearing essentially on the proposed line of railroad. The returns as to the out-turn of coal were obtained by going from pit to pit and quarry to quarry, and are only approximately correct:—

## RANEENGUNGE COLLIERIES.

COLLIERIES.	No. of Mines which have pro- duced coal. in April 1859.	TOTAL COAL PRODUCED IN 1858.		TOTAL COAL PRODUCED IN 1859.		No. of Mines which had not produced coal in April 1859.
		Mds.	Tons.	Mds.	Tons.	
I.—In the neighbourhood of Ra- neengunj	6	3	35,80,000	131,530	44,50,000	163,493
II.—On the Singarun	8	3	10,20,000	37,475	22,24,000	18,710
III.—On the East Branch of the Noooneah	3	0	2,40,000	8,918	3,30,000	12,124
IV.—On the Main Stream of ditto...	7	2	4,65,000	17,084	5,80,000	21,309
V.—On the West Branch of ditto	5	1	3,20,000	11,757	3,70,000	13,594
VI.—In the West of the Field	6	0	7,00,000	25,718	8,50,000	31,229
VII.—Other Mines	3	1	1,40,000	5,143	1,60,000	5,878
<b>Total</b>	38	10	64,85,000	237,525	89,64,000	329,337

This return is calculated on the present yield of the collieries, and does not represent the amount actually raised in the 12 months last past. It is rather under, than over the mark as regards the present out-turn of the field. But to be perfectly certain of not overstating the facts, deduct from this amount say 15 per cent., and there will still remain 7,717,150, say 77 lakhs of maunds.

Of this large out-turn a very considerable portion is carted away across the country to many of the stations on the extension of the line of Railway towards Rajmahal; much also is still sent down to Calcutta by water in boats on the Damooda; while a considerable amount is consumed locally for the supply of locomotives, &c. The railway cannot at present carry more than two-fifths of the whole amount of coal raised. It carried in 1858 only 3,316,241 maunds. This is owing not only to the insufficiency of the rolling stock which is being increased every month, but to the fact that the present terminus of the railroad near Raneegunge, accommodates one group of mines greatly more than any other. A short branch line is necessary and will prove a profitable investment. The amount of coal now raised is  $3\frac{1}{2}$  times as great as it was 9 years ago. The demand for coal by new railways, factories, &c., is increasing, and soon the North-West line will absorb a very large quantity. The present traffic for coal will in a few years be thus enormously increased. The following plans will meet all necessities:—

1st. A branch line up the valley of the Singarrun to Chowkeedangah. This line would be about eight miles in length; could be constructed for £4,000 per mile; could be finished in nine months from the date of commencement, and will afford direct, ample accommodation to collieries now yielding annually 22 lakhs of maunds of coal, and to other pits now being sunk, but which have not yet yielded coal.

2nd. The present line may be continued from Raneegunge to the west along the same general direction as the Nooneah Nuddi, at least as far as the neighbourhood of Bahra Chuh, if not to the banks of the Burakur. But as, sooner or later, a railway must be carried in a more direct line from Calcutta to the North-West than the present Ganges valley route, so as to strike Patna and save 100 miles, the part common to both should be arranged accordingly.

3rd. A line to open up the large coal field to the west of the Burakur, may meanwhile remain in abeyance.

## THE GEOLOGICAL SURVEY OF INDIA.

1858-59.

The Geological Survey during 1858-59 steadily pursued its labors, though with diminished numbers. The examination of a considerable area in the districts of Burdwan, Beerbhoom, and Bhaugulpore was carried out. The alluvial deposits of the Ganges Valley, extending from the Bhageruti northwards to the foot of the hills, were mapped, and their elevation and inclination determined. An area, embracing about 16,000 square miles in all, was completed. Two of the Geologists of the Survey were sent to examine the true state of the coal fields of the Damooda and Adjî, after they had commenced their field work elsewhere. The full results are to be submitted hereafter. The existence of a very large and abundant supply of coal to the west of the river Burrakur, where not previously known, was established. The attention of the Surveyors was confined to the portion north of the Damooda with a view to settle the question of the extension of the Railway.

*Maps.*—Geological Maps of districts examined by the Geological Survey previously to May 1858, were finally prepared and submitted to Government during the past year. These included the district maps of Saugor, Dumoh, Jubbulpore, and part of Bundelcund, in Central India, and the districts of Bancorah, Midnapore, Hidgellee, Cuttack, and Pooree (Orissa,) in Bengal, embracing an area of more than twenty-six thousand square miles. This, taken together with the areas of which Geological Maps had been previously submitted or published, will give a total area of more than 38,000 square miles—a larger area than that included in the whole of Ireland. Maps of nearly as great an area are in active preparation.

*Publications.*—The second part of the Memoirs was issued in January 1859. It contained a report on the Khasi Hills, on the coal at Lakadong in the Jynteah Hills, and on the Nilghiri Hills. The 1st part of the 2nd volume containing Professor Medlicott's report on the northern part of Bundelcund, was ready; the 3rd part of the 1st volume would not long be delayed. Reports on the Nerbudda were in the press. The preparation of maps and illustrations causes trouble and delay. The publication of the Geological Maps of that most interesting district, "The Rajnchai Hills," awaits the issue of the sheet of the

Indian Atlas, No. 113. The disturbed state of the country during the previous two years interfered with systematic progress and made it impossible to unite the work between Central India and Bengal. As the Survey had been working for less than three years with a merely nominal staff, the Superintendent considers the results highly satisfactory.

**Museum.**—Very considerable progress was made in its arrangement. The Trustees of the British Museum, the Royal College of Surgeons, London, and the Geological Survey of Great Britain, presented very valuable series of fossils. To the series of Indian fossils, very large additions were made. Of the cretaceous fossils, a most extensive collection was made by the Geological Surveyors during their examination of that group in the districts of Trichinopoly and Pondicherry. The entire series of the group of fossil plants in the Rajmahal Hills was gone over. Several of them were lithographed. Additions were made to the arranged collections of the larger animals from the Nerbudda, to the cretaceous fossils from Madras, and to the economic series. Analyses or assays of various minerals were made for several persons, and descriptions of specimens furnished; tea soils and subsoils from Cachar; ores from Beerbhoom; iron sandstone from Rangoon, for Public Works Department; laterite from various depths in well at Daltola, in Orissa, with description of specimens; from near Thayet Myo, collected by Dr. Ranking, for Major Phayre; and from the Derajat and Suleiman Range. Various references also were made on other matters of practical importance—the propriety of attempting Artesian wells in the cantonments at Rancegunge; the structure of a hill to be cut through, for the proposed new flood channels of the Mahanudi (Cuttack); the proper localities for Barracks in the Khasi Hills; and the general structure and produce of the Raneegunge coal field, as bearing on the proper selection of the direction in which the present line of railroad should be carried on. The Museum contained, carefully arranged and named, altogether upwards of 6,800 specimens of fossils; 1,550 specimens of simple minerals; 700 of rocks; and 1,500 of ores, products of ores, and other economical products: giving a total of about 11,000 specimens. It had been in existence little longer than two years. The number of visitors was 57 per cent. greater than during 1857-58. The Library contained 1,850 volumes and parts, the total number added during 1858-59 being 684.

The Survey lost 3 Assistants by sickness and death during the year, or a third of its whole staff.



## THE MUNNIPORE VALLEY AND HILL TRIBES.

*Indian Records, No. XXVII.*

1859.

## I.—VALLEY OF MUNNIPORE.

Munnipore is one of the few valleys in the great mountain tract between latitude  $23^{\circ} 50'$  and  $25^{\circ} 30'$  North, and longitude  $93^{\circ} 10'$  and  $94^{\circ} 30'$  East. It is bounded on the North and West by the British Provinces of Assam and Cachar, and on the East by the Kubbo valley now subject to Burma. On the North East and South the boundary is not well defined; in the North East it may be denoted by a line drawn North from the North-Western corner of the Kubbo valley, until it strikes the Assam boundary, and in the South by one drawn West from the source of the Numsailung River, the fixed South-East boundary, till its junction with the Tooyai River. Of the space comprised in these bounds, the valley of Munnipore occupies nearly the centre. It is called by the Munnipoorees, "Meitheilcipâk." The Burmese call it Kathé, the Bengalees Moglai, and Assamese Meklé. The area of the whole territory is about 7,000 square miles, and that of the central valley about 650. As Munnipore, from its connection with the British Government and the tribes around admitting its supremacy, is the most important of the vallies, Major W. McCulloch, the Political Agent, gives an account of it.

The Kongba, Eeril and Thobal, which rise in the hills to the North and North East, are the principal rivers. The two latter fall into the Kongba, which forms the drain for all the waters flowing into the valley, carrying them off by Shoogoonoo through the Southern hills into the Ningthee. The climate is good, but the temperature higher than the elevation, 2,500 feet, would lead us to expect. From May to October when the hill streams rise, communication with Bengal or Burmah is dangerous. The connexion of the valley with the West has increased disease. Venereal disease is virulent; small pox is constantly present; fever is general, and cholera has committed great ravages. But generally the country is healthy. The soil is rich, but the cultivation is limited. Rice, pulses, sugar-cane and tobacco grow luxuriantly. Potatoes are inferior, and fruits sour, except the pine-apple, mango, and guava.

*History.*—The origin of the Munnipoorees is obscure. Of the

several tribes in the valley the Meitheis seem to have obtained the supremacy, and have claimed a Hindoo descent since their conversion to Hindooism. Their traditions, customs and language shew that they have descended from the surrounding hill tribes, and not from a Tartar colony as Captain Pemberton supposed. Their records are barren till 777 A. D., when Sam-long, a brother of the ruler of the Shan Kingdom of Pong—which embraced in its limits the whole country between Ava and Assam, Kubbo and Yunan, and exacted obedience from Assam, Cachar and Tipperah, and held the Shan Chiefs in the Kubbo valley as tributaries—visited the valley and excused their paying tribute on account of their poverty. In the 700 years after that visit the Meitheis became so important that in 1474 a Pong King demanded the Rajah's daughter in marriage. Next year Khumbat was transferred by conquest to Munnipore and the people became more civilised. In 1714, Panheiba or Gureeb Nawaz, the adopted son of the Rajah and originally a Naga boy, accidentally shot his father, and succeeded to the throne. In 1749 he was defeated in an expedition against Burmah. On his death the Burmese turned their arms against Munnipore, and the rajah applied to the British Government for aid, offering to pay an annual tribute. An officer was sent to Caspoor, the then capital of Cachar, but was recalled. A short time before the reign of Gureeb Nawaz, Hindooism was introduced, but made little progress. From 1761 to 1798 Jae Singh, better known as Chingtung Kumba, reigned. For the next 23 years the history is one of the struggles of his sons for the Guddee, and the ravages of the Burmese. When the first Burmese war broke out in 1823, the British took a party of 500 Munniporees into their pay, under the command of Gumbheer Singh, one of his sons. This force subsequently increased to 2,000 men, and denominated the Munnipore Levy, was placed under the Command of Captain Graat, who with it effected the expulsion of the Burmese from the Kubbo Valley as far South as Kallé, making the Ningthie river the Eastern boundary of the Munnipore territory. With the view, however, of pleasing the Burmese, this boundary was afterward at the desire of the British Government given up, and the Eastern base of the Yomadoung hills adopted in its stead. Then the base of the hills the river was a far better boundary, and the adoption of the former has brought upon the British Government an expense of Rupees 500 a month as compensation to Munnipore for alienated territory, and has made it necessary, from the predatory habits of the tribes inhabiting the Yomadoung hills constantly endangering it, to secure the peace of the frontier by retaining at Munnipore a Political Agent. The treaty of Yandabo declared Gumbheer

Singh independent. Up to his death in 1834 he was engaged in coercing the hill tribes.

Nur Singh, the most powerful man in Munnipore, acted as regent during the minority of Gumbheer Singh's infant son, with great justice. Notwithstanding, the young Rajah's mother planned a conspiracy to murder him in 1844, and being discovered and forced to flee with her boy, Nur Singh ruled as king till his death in 1850. His brother, Debindro Singh, a man of no intellect, succeeded. But Gumbheer Singh's boy, the lawful heir, named Chunder Kirtee Singh, seized the throne; Debindro fled to Cachar and the princes of that country made frequent attempts to upset the Government of Munnipore, which were most prejudicial to British influence. To check them and the threatened invasion of some Burman Prince, the British Government took Chunder Kirtee Singh under their special protection. Our troops pursued a party of Cachar princes into Munnipore, since which time there has been peace. Chunder Kirtee Singh being only twenty-seven years of age, there is every prospect of his long holding the guddee. His eldest son has been made Joobraj. In 1835, at the commencement of the regency of Nur Sing, the British Government resolved to discontinue altogether connexion with the Troops of Munnipore, and to leave it optional to the authorities to maintain the Levy or not. By a mistaken policy, the Troops were not only retained but increased.

*People.*--The present population of the valley is estimated at 50,000, composed of different classes. The principal is the Meithci, next the Phoongnai, after whom come the Tengkul, the Ayokpa, the Kei, the Loce and Mussulman. The Meithci population is divided into four parts called "Punnahs," which are designated in the order of their seniority "Kaphum," "Lai-phum," "Ahulloop" and "Niharoop." The Punnahs perform "laloop" or service for ten days in rotation, thus bringing every male in the country above sixteen years of age on duty, ten days in forty. This service is a due to the State, none are remunerated for it.

The Phoongnai and Tengkul were originally slaves of the Rajah. The chief duty of the latter is gardening. The Kei provide and pound the rice for his household. The Loces pay tribute and are looked on as very low. They are chiefly artisans. The Mussulman population arose from Munnipooree men having taken as wives Mussulman women before the doing so was much cared about, or before the regular introduction of Hindooism. On the introduction of that religion, they, with their descendants, were obliged to become Mussulmans. This original population was increased by Mussulmans from the west, who came and settled in Munnipore. Successive devastations

have thinned their numbers. Their four great divisions are sepoys, gardeners, turners and potters. They are the most industrious part of the population.

When first raised the sepoys were supported entirely by the British Government. When that support was withdrawn, and a piece of land was given to each man in lieu of pay, the recruiting of the force was no longer easy. They have gradually become exempt from every duty and every tax. Each man is entitled to about 3 acres, which he himself cultivates. They are on duty, as with the Punahs, for 10 days in 40; if detained longer they have rations of rice and salt. Gradually the force has degenerated as it has increased; none know how to handle their muskets, most of them never fired a shot. But the possession of the musket makes them an object of terror to the hill tribes. The present number of sepoys is 3,600. Munnipore cannot maintain so many in an efficient state, and it should be reduced to 1,000. We made the country independent, that we might have a neutral territory between our frontier and that of Burmah. If its troops are so miserable, this object is lost.

*Religion, Habits, &c.*—Though the Munipoorees profess Hindooism, they have not given up their ancient worship, and above three hundred deities are still propitiated by appropriate sacrifices of things abhorrent to real Hindoos. Their maibees, that is priestesses—for before the introduction of Hindooism there were no priests—are still in great request, more especially in cases of sickness or adversity, and what they give out as the oracle of the particular deity addressed is reverently listened to and acted on. The Raja's peculiar god is a species of snake called Pakung-ba from which the Royal family claims descent. When it appears, it is coaxed on to a cushion by the priestess in attendance, who then performs certain ceremonies to please it. The Brahmans are not really felt to be of a superior caste; the young eat all food freely; the old often abandon Hindooism. Very early marriages are not approved of. Polygamy is common. Suttee is unknown. Widows are not treated as in Hindostan: they may marry again, eat such food, and dress in such style, as they please. The people are habitual deceivers; their morality is low, but crime is not excessive. The women are not confined, but in many cases support their husbands, and are really their slaves.

There is a most corrupt Court called Paja for the judgment of all matters between man and wife. The will of the reigning Prince is the only law. Treason is the highest degree of crime. Murder is next, and is reckoned a capital offence, though not always. The Chirap, the only Court, be-

sides the Paja, judges every matter brought before it, not in the jurisdiction of the latter. Formerly, it had 60 or 80 hereditary members, but as with the Paja, the members do not now inherit their seats, but obtain them by means of money. As might be expected, they are corrupt in the extreme. Property is generally willed to those of the family most in need of it without reference to seniority. At the three great festivals of Munnipore there are feats of agility and strength, boat-racing and hocky on horseback, which last is the national game. The same sort of mild slavery exists as among the Malays, though the hill people who occasionally sell themselves or are sold by their relatives, are not always well treated. Each district divides itself into neighbourhoods, who again divide into "singloops" or "wood clubs." The elders of the neighbourhood settle all minor disputes occurring in it, and in case of the illness of a member they tell off individuals to attend on the sick person, whilst, should he die, the wood club to which he belongs brings the wood for his funeral pyre. The indoor amusements consist of conundrums, songs, and *Kangsanaba*. This last is as peculiar to Munnipore as hocky on horseback. The Kang is the seed of a creeper; it is nearly circular, about an inch and a half in diameter and about three quarters of an inch thick. This is placed on the ground upright, at one time with its broadside towards the party by whom it is to be struck, at another edge-wise. When the Kang is placed with its broadside to the party, it is to be pitched at with an ivory dish, when it is placed edge-wise, it is to be struck by the disk propelled on its flat side along the surface of the ground by the force of the middle finger of the right hand acting off the forefinger of the left. A good player can propel the disk in this way with great force and precision. The side having most hits wins. The whole is closed by a feast at the expense of the losers.

The rent paid to the State upon the "purree," which is equivalent to about three of our acres, is nominally fixed at two baskets of rice in the husk, but generally before the year is over, thirteen are exacted. The domestic animals of the Valley of Munnipore are the buffalo, cow, horse, dog and cat. Ducks, geese and pigeons are pretty generally bred; fowls only by the Mussulman, Looe, and Naga portion of the population. The tiger and wild hog are at times very destructive to human life. Once a year it is usual to fire the jungle. The best time for shooting is just when the deer are attracted by the young shoots which began to sprout, and the tiger by the deer. The Logtak, or great lake, is the resort of wild duck, partridges, quail, snipe, wild geese and teal; and fur-

nishes 26 varieties of fish. It is gradually filling up. The marshes to the South afford a retreat to serpents of a formidable size. In a country in which each family produces nearly all which it consumes, any advancement in the arts can scarcely be expected. But if without other impediments, improvement could take place, it would be repressed under a Government such as that of Munnipore. Under the operation of the laloop, a good artificer works along with a bad one, and receives no more thanks for his work than if it was as bad as that of his less skilful associate. He becomes disgusted, and his only aim is to amass quickly, by his superior intelligence, enough to purchase his release from work. This done, he thinks no more of his trade. Thus all are ever at the rudiments, and no progress is made. The cloths are distinguished for strength rather than fineness, and there is little variety in the pattern. The eating and drinking vessels are chiefly of bell-metal. Except a few roads, allowed to go to ruin, there are no works of public benefit.

The valley contains iron in the form of tintaniferous oxydulated ore. The loss produced by smelting amounts to nearly 50 per cent. Axes, hoes, ploughshares, arrowheads, and blades fixed in a handle called daas, are the chief articles manufactured. The valley is rich in salt strings, which are the property of Government. The money revenue is exceedingly small, the principal item being the compensation, Rupees 6,370 per annum, paid by the British Government for having obliged the Munnipooree Government to give up to the Burmese the territory between the Ningthee River and the base of the Yoma Hills. The remainder consists of tribute in "sale" from the "sale" Locts, of rent of fisheries, transit duties, and export and import duties. The total money revenue may be estimated at from twelve to fifteen thousand Rupees. The principal import is the sooparee or betel-nut of which the Munnipoorees consume a great quantity. The traffic in slaves to Burmah has been suppressed by the Political Agent. Coarse cloths are exported. There might be a profitable trade in buffaloes. The valley is favourably situated for commercial purposes, but the system of Government is opposed to the development of commerce. The only coin is of bell-metal.

*British Connexion.*—Though Munnipore was declared independent by the treaty of Yandabo it was too weak to remain so. Its position, in a military point of view, was too important to allow the Burmese to obtain command of it. Hence we have retained a Political Agent to settle border disputes, and they have been numerous till within the last 25 years, during which

Munnipore, has increased in population and wealth. Its advantages of soil and climate are overbalanced however by the system of Government and Religion. We constructed a magnificent road through the mountains from Cachar to the Valley, which has increased the commerce with the West. The Shaws on the frontier have annually exported for some time past to the value of from Rs. 30,000 to Rs. 50,000.

When the stronghold of Hindooism has been attacked, the numerous tribes and nations which dwell on our Eastern frontier will be rescued from mental debasement.

## II. HILL TRIBES.

Those in the West are known under the general appellation of Naga and Kookie. In Munnipore they are all embraced in the term Han, Koupoose, Quoirang, Kongai, Kameo, Ane, Namsan, Aimole, Kom, Koureng, Cheero, Pooroon, Munguck, Karum, Murring, Tangkool, Lophoppe, Mow, Muruk, Miyang-khang, Gnamel, are the names in use amongst Munniporees to distinguish the principal tribes. They were all much more numerous than they are at present. The contrast between the comparatively tall and prominently featured people of the plains and the diminutive, low nosed hill people, is striking. The Koupooses occupy the hills between Cachar and the Valley of Munnipore in their whole breadth, a direct distance of about forty miles; and from 25° North latitude, they formerly extended over nearly an equal distance to the South. To them as to all the tribes from Cape Negrais as far north as we know, active feud is the normal state. They congregate in communities, usually of families connected by blood ties. There are no roads; water is generally carried from a distance; the ascents are circuitous. Col. Guthrie, who constructed the Munnipore Road, partly at his own expense, is still remembered with affection by the hill men. They cultivate rice and the wild yams. Rats occasionally devastate the villages in large numbers; the last inundation was 30 years ago and the next was expected in 1859.

The Munnipore State does not interfere with their internal Government. Every village has three hereditary officers, namely the Koelikape, Loop-lakpa, and Lampoo; any officer besides these, are elected. Each village is a small republic, and the rights of person and property are sacredly preserved. The young unmarried men are allowed a certain license. They live in clubs, which the seniors depositarily rule. The young men who have their places of resort, and between them and the young men intercoursing is quite unrestricted without leading to immorality, which is the exception. A wife is bought or the family name of a builder and several agricultural implements.

Run-away matches are occasionally made. The adulterer, when he does not escape, is punished with death, and the family of the adulteress refund the price paid for her and pay her debts. On the death of a wife her husband pays 'mundoo' or a buffalo for her bones. Polygamy is permitted but not largely practised. The Koupooees believe in a supreme creator and in a future state, also in many other deities. They are clean compared with the rest of the hill people.

The *Quoirengs* inhabit all the hills north of the Koupooees, between the high range that skirts the Valley of Munnipore and the Burak, as far as the Angamee tribe, from whose aggression they have suffered much. They are energetic traders. The Khongjais or *Kookies* until lately occupied the hills to the south of the Koupooees. They were driven from their hills by tribes better armed than themselves, and are now scattered around the Valley of Munnipore, and thence through the hills to North and South Cachar. They are now migratory. Their villages have not the permanent look of the Koupooees and Quoirengs, nor have they hereditary but powerless chiefs like them. Their chiefs receive a revenue in kind and exact service from their subjects. The salique law rigorously prevails, but the influence of woman is great amongst them. The wives of some of the Rajas manage all the affairs of their villages apparently much to the satisfaction of their people, and widows during their sons' minority, often, without dispute, assume the management of affairs. They are a short sturdy race of men, excellent hunters, great smokers, and inclined to be lazy. The *Kamsol* tribe is really Kookie.

The *Anals* are like the Kookies in personal appearance. They occupy a large tract in the south east. The want of eye-brows and eye-lashes is amongst this people admired, and the young men, to render themselves attractive, carefully extract them. Aimole, Kom, Koireng, Chote, Pooroom, Muntuk, Karum are all evidently only varieties of the Kookie stock. The *Kom* at one time was a powerful tribe, on the eastern side; the *Murring* seems to connect the tribes of the South with the Tangkool which fuses into the Loohoopa. The *Murring* was not long ago a numerous tribe. It is now represented by nine small villages. Amongst all these tribes the Munnipoorees are spoken of as a younger branch of themselves. The Tangkools are next to the Murings and, though still numerous, were formerly more flourishing. The *Loohoopas* are the fiercest and one of the most numerous of the tribes around Munnipore. They are a superior race in both war and the arts of peace. West of the Loohoopas are the *Mow* and *Muram* tribes. The next tribe, *Meeyangkhang*, is

composed of nine villages situated to the south of the Murams. It partakes more of the character of Koupooees than of its northern neighbours. The Meeyangkhang village is celebrated for its fine terraces for cultivation. North of the Mow tribe, and often at feud with it, lies the *Gnamei*, or as it is known in Assam and Cachar, the *Angamee* tribe. These people are known by their blood-thirsty attacks on their weaker neighbours, attacks which attracted the attention of the British Government, and led to ineffectual endeavours for their prevention. Some of the tribe have gone as far as Calcutta in pursuit of trade.

We have no exact information as to the Geological features, mineral resources, and vegetable products of the hill tracts. The country is very fruitful and capable of improvement. The tea plant abounds. Amongst all the hill tribes there is a more or less faint idea of a future life, and of rewards and punishments for virtue or misconduct, but the greatest misconduct is, the forgiveness of an injury; the first virtue, revenge; and the killing of a fellow creature is thought of with as little compunction as would be the killing of a fowl. With the assistance of the arms and ammunition given to Munnipore by the British Government, some of the tribes have been thoroughly, the northern ones partially, reduced, and the attacks of the latter on the bordering Burmese have led to apprehensions of the interruption of the general peace of the Frontier. But the presence in Munnipore of a representative of the British Government, has preserved the peace, and by degrees, through his influence, the tribes have been brought to forego aggressions on Kubbo. The peace of the Frontier, the object of greatest political importance, has been gained, but the philanthropist would desire more, and a strong and honest Government would endeavour to repress the feuds and ameliorate the condition of the tribes. Major McCulloch concludes;—"Of their improvement, therefore, I see no prospect, unless by a moral regeneration, and that I fear is not to be effected."

The appendices contain a Comparative Vocabulary of the Munniporee, Undro, Sengmai, Chairel, Meeyang, Koupooee Poeeeron, Koupooee Songboo, Quoireng, Khoonggoee, Phudang, Koopome, Tukaimee, Muram, Murring, Anal Namfau, Kookie, Burmese and Shan languages, and a Genealogical table of the Kookie Kings.

**ADMINISTRATION OF CIVIL JUSTICE IN THE  
MADRAS PRESIDENCY.**

*For 1858.*

This report, dated 25th May 1859, gives the following statement of Civil Cases depending on 1st January and instituted during 1858, as compared with the previous year:—

	1857	1858
Before Punchayets,	...	100
Village Moonsiffs,	...	26,280
District Moonsiffs,	...	1,46,357
Sudder Ameens, ...	...	4,363
Principal Sudder Ameens,		
Original,	...	1,125
Appeal,...	...	2,748
Assistant Judges		
Appeal,	...	664
Subordinate Judges		
Original,	...	599
Appeal,	...	2,488
Civil Judges		
Original,	...	809
Appeal,	...	10,462
Sudder Udalut		
Regular,	...	49
Appeal, ...	...	176

Of the whole there were since 1854:—

AGGREGATE OF ORIGINAL JURISDICTION.

	1854	1855	1856	1857	1858
Depending 1st January	58,874	60,638	54,287	53,528	57,616
Instituted during the year	1,10,475	1,05,527	1,21,670	1,26,105	1,43,389
Total	1,69,349	1,66,215	1,75,957	1,79,638	2,01,036
Decided on merits	37,377	43,659	47,043	46,888	48,131
Dismissed on default	7,900	9,729	10,757	11,809	8,983
Adjusted or withdrawn	54,832	56,064	62,577	61,178	63,218
Otherwise disposed of	8,602	2,476	2,052	2,312	17,918
Depending 31st December	60,638	54,287	53,528	57,346	63,735
Decided by European Judges	1,650	830	716	819	3,726
Do. by Native do.	1,07,031	1,11,055	1,21,657	1,21,118	1,33,526
Do. by Punchayets	30	43	56	50	48
Total decided	1,08,711	1,11,928	1,22,429	1,21,987	1,37,300

The original suits were :—

	1854	1855	1856	1857	1858
Connected with land rent, and Revenue ...	9,234	8,703	9,979	11,217	4,011
Otherwise connected with land ...	.....	.....	.....	.....	8,930
For Houses or other fixed property ...	2,137	2,020	2,261	2,647	3,086
Connected with debts, wages, &c. ...	99,104	94,854	1,00,324	1,12,083	1,14,010
Connected with Caste, Re- ligion, &c. ...	.....	.....	.....	.....	400
Connected with Indigo, Sugar, Silk, &c. ...	.....	.....	.....	.....	3,184
Total ...	1,10,475	1,03,577	1,21,564	1,25,057	1,34,573

Of these 42,026 were decided in favour of the Plaintiff and 6,155  
of the Defendant.

The average duration of suits was :—

	1857			1858		
	Years.	Months.	Days.	Years.	Months.	Days.
Sudder Udalut ...	...	3	5	...	3	26
Civil Judges ...	1	3	27	1	3	27
Subordinate Judges ..	1	5	22	1	3	8
Assistant Judges ...	2	6	10	1	11	7
Principal Sudder Ameens...	1	1	20	...	11	1
Sudder Ameens ...	...	5	14	...	7	29
District Moonsiffs ...	...	7	17	...	7	11

The value of suits depending before the Sudder was Rs. 5,10,880; and before other Courts Original, Rs. 1,60,06,468. A sum of Rs. 14,70,883 was depending in appeal. The total was Rs. 1,79,88,231.

**CAPITAL OF EACH RAILWAY COMPANY  
IN INDIA.**

To 1st AUGUST 1859.

*Parliamentary Papers.*

This return shews the amount of Capital raised by each railway in India from the commencement of operations to 1st August 1859. The results we summarise.

The Total Amount is £21,800,541-4-9 of which £19,061,097-17 is principal and £2,739,443-7-9 interest. The balance of Principal due from the Government of India at the end of 1858-59 is estimated at £4,189,382-10-4, of which the following are the details:—

**BALANCE OF PRINCIPAL due to or from each Railway Company, &c.,  
30th April 1859.**

		£ s. d.	£ s. d.
Due to East Indian	...	1,769,084 16 6	
Due to Great Indian Peninsula	...	774,409 4 10	
Due to Madras	...	234,176 0 6	
Due to Sind	...	618,442 13 1	
Due to Eastern Bengal	...	354,797 4 0	
Due to Great Southern of India	...	107,462 14 4	
Due to Calcutta and South-Eastern	...	101,240 16 9	
Due to Madras Irrigation and Canal Company	...	271,866 4 1	
		<hr/> <b>£ 4,231,469 14 1</b>	
Due from Bombay, Baroda, and Central India	...	42,087 3 9	
<b>TOTAL</b>	<b>...</b>	<b>£ ... ...</b>	<b>4,189,382 10 4</b>

*Capital raised by Indian Railway Companies &c. to 1st August 1859.*

Name.	Since.	Paid into Home Treasury.	Paid into Indian Treasury.	Interest received in Eng. land.				Interest received in India.				Disbursements in England.				Disbursements in India.			
				£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	
East Indian,	1848-49	11,498,034	4 0	233,301	1 6	1,741,105	13	5	32,088	3	0	3,971,614	14	9	6,047,603	14	8		
(Great Indian Peninsula,	1848-19	4,716,471	8 4	337,390	5 1	675,386	17	6	76,911	10	7	... ...	... ...	... ...	... ...	... ...	... ...		
Madras,	1852-53	3,726,087	10 0	... ...	... ...	471,737	0	9	... ...	... ...	... ...	1,386,994	1	0	1,877,781	18	1		
Bombay, Baroda and Central India,	1855-56	1,228,201	15 7	13,955	19	7	102,260	5	9	1,532	5	16	750,259	7	8	387,370	5	9	
Sind,	1855-56	1,471,339	16 11	15,925	9	4	114,997	5	11	2,041	16	6	722,521	15	2	163,535	17	8	
Eastern Bengal,	1857-58	395,577	4 0	2,347	14	5	19,531	4	2	112	0	0	49,079	13	11	13,750	0	0	
Great Southern of India,	1858-59	120,000	0 0	... ...	... ...	1,993	8	4	... ...	... ...	... ...	32,119	4	3	... ...	... ...	... ...		
Calcutta and South Eastern,	1858-59	108,500	0 0	... ...	... ...	2,346	13	3	... ...	... ...	... ...	15,676	11	11	550	0	0		
Madras Irrigation and Co. ush,	1858-59	355,396	0 0	... ...	... ...	4,156	5	8	... ...	... ...	... ...	4,215	13	8	... ...	... ...	... ...		

HOME ACCOUNTS OF THE GOVERNMENT  
OF INDIA.

1857-58.

*Parliamentary Papers.*

The chief items may be thus summarised.

RECEIPTS.	£	s.	d.
	12,354,234	4	5
Balance on 1st May 1857,     ...	3,041,994	6	2
	15,396,178	10	7

The chief items were:

	£	s.	d.
Bills from India on account of supplies to the public service,     ...	38,853	0	11
Bills drawn on India for cash received into the Home Treasury,     ...	628,499	2	10
From Her Majesty's Government on account of China Expedition, Persian War, Hong-Kong, Coolie Emigration, Madras Troops at Labuan, and for- warding H. M.'s 10th Hussars, and 12th Lancers from India to the Crimea,	1,729,170	6	4
Four per cent. Debenture Loan Act 21 Vict. c. 3,     ...	2,818,173	8	4
Indian Railway Companies     ...	2,963,112	15	8
Bonded on Security of East India Bonds,	2,870,000	0	0
	£.	s.	d.
	11,044,577	13	7

DISBURSEMENTS,	£	s.	d.
Balance in favour, 30th April 1858 :	11,044,577	13	7
Capital of Exchequer			
Bills and bonds     ...	£1,598,900	0	0
Current cash     ...	2,752,700	17	0
	£	s.	d.
	4,351,600	17	0
	£	s.	d.
	15,396,178	10	7

The chief items are. Cost of bullion remitted to India,     ...	... £1,031,032	15	4
Dividends on India loan property,     ...	... 82,984	13	1
Indian Railway Companies,     ...	... 1,324,873	3	2
Interest on Railway Capital,     ...	... 655,854	5	11
Military Stores,     ...	... 1,390,543	2	8

*Charges on the Revenues of India.*

	£	s.	d.
Dividends to Proprietors of East India Stock,	626,859	10	7
Interest on the Home bond debt, ...	159,165	13	8
Her Majesty's Government; payments under the new postal arrangement with the Lords of Her Majesty's Treasury, ...	42,711	0	0
Transport of troops, ... ...	812,778	2	9
Furlough and retired pay to military, marine and officers of the Indian establishments in- cluding off-reckonings, ... ...	717,728	0	2
Retired pay and pensions of persons of the late St. Helena establishment, not charge- able to Her Majesty's Government, ...	3,469	9	3
Her Majesty's Paymaster General, for claims accrued against the Company in respect of Queen's troops serving in India, ...	1,175,000	0	0
Payments under Act 4, Geo. 4, c. 71, on ac- count of retiring pay, pensions, &c. of Her Majesty's troops serving or having served in India, ... ...	60,000	0	0
Civil establishments of India; absentee allow- ances, ... ... ...	50,248	17	6
Ditto ditto annuities of the Madras civil annuity fund of 1818, ...	7,726	17	7
Her Majesty's mission to the Court of Persia (portion of the charge payable by the Company,) ... ...	12,000	0	0
<i>General Charges.</i>			
Board of Commissioners for Indian affairs, ...	28,211	1	2
Salaries of Court of Directors, ...	9,958	11	2
Do. of their Secretaries and officers, ...	89,786	7	3
Haileybury net charge, ...	9,651	18	7
Addiscombe do., ...	4,587	17	9
Warley dépôt, ...	120,118	0	11
Passage and outfit of officials from the Comman- der-in-Chief down to Telegraph Signallers, ...	187,781	18	3
Lord Clive's Fund, for pensions, ...	67,217	14	4
Gratuities to relatives of those killed in Muti- nies, ...	14,693	7	7
Postage of Company's Despatches, ...	5,264	17	9
Maintenance of Indian lunatics, ...	6,723	9	2
Law charges, ...	7,604	9	11
The estimated receipts for 1858-59 were £18,249,123 includ- ing balance from previous year. The estimated disbursements			

were £15,429,724. The Debts and Credits in England of the Government of India on 1st May 1859 were :—

Amount of Debts,	...	...	£20,486,005
Ditto Credits, ...	...	...	6,114,271
Debts in Excess,	...	...	£14,371,734

The above, on the one hand, is exclusive of the amount owing to Proprietors of India Stock for their Capital ; and on the other hand, of the Guarantee or Security Fund, formed under the provisions of the Act 3 and 4 Will. 4, c. 85.

The chief items of the Debts were

Railway Principal,	...	...	...	4,189,382
Home Bond Debt,			5,029,917	
Bonds issued as security for temporary loans to the like amount,	...	...	1,970,000	
				6,999,917
Four per cent. debenture loan, Act 21				
Vict. c. 3, capital of the loan,	...	...	...	7,997,000
Four per cent. debenture loan, Act 22				
Vict. c. 11, deposits on account of this loan,	...	...	...	113,277

A LIST of the ESTABLISHMENT of the SECRETARY OF STATE in COUNCIL of *India*, and the SALARIES and ALLOWANCES payable in respect thereof, on 1st May 1859.

		Number.	Salaries and Allowances.
Secretary of State, Under Secretaries of State, Assistant Under Secretary of State, and Members of Council	...	...	£ 28,450
Secretariat Department: consisting of seven officers and clerks	...	7	4,063
Indian Correspondence Department: consisting of thirty-seven officers and clerks	...	37	22,875
Military Department: consisting of eleven officers and clerks	...	11	7,872
Marine and Transport Department: consisting of six officers and clerks	...	6	3,550
Inspector General of Stores Department: consisting of seven officers and clerks, and seventy-nine examiners of stores, assistant examiners, labourers, &c.	...	86	10,792

Accountant General's Department: consisting of sixteen officers and clerks ...	... ...	16	7,673
Cashier's Department: consisting of six officers and clerks ...	... ...	6	3,554
Auditor's Department: consisting of seven officers and clerks ...	... ...	7	3,988
Administration, Will, and Bond Department: consisting of three officers and clerks ...	... ...	3	2,208
Searcher of the Records and Statistical Reporters' Department: consisting of five officers and clerks ...	... ...	5	3,166
Writers' Department: consisting of a Superintendent and sixty-one writers ...	... ...	62	15,760
Standing Counsel, Solicitor, Clerk of the Works, Geographer, Librarian, Reporter on the Products of India, Keeper of the Museum, Under Keeper of the Museum, Examining Physician, Examiners of Surgical and Veterinary Instruments ...	... ... ...	11	4,300
Doorkeepers, office porters, door porters, messengers, &c. ...	... ...	57	6,091
Housekeeper, assistant, and charwomen ...	... ...	10	471
Portion of the establishment retained at the office of the Board of Control in charge of records and papers, two officers and one clerk; messengers, housekeeper, and female servants ...	... ...	12	2,700
		355	127,511
Allowances payable to clerks, writers, and labourers temporarily employed ...	... ... £	4,306	
Military College: consisting of the Public Examiner and Inspector, Lieutenant Governor, twenty-two professors, masters, staff and other officers, and thirty non-commissioned staff and public servants ...	... ... ...	60	9,493
Military Dépôt at Warley: comprising eight officers and thirty-four non-commissioned staff ...	... ...	42	4,787

Recruiting Districts: comprising eight officers  
and ninety-two non-commissioned staff ... 100 £11,643

The chief Pensions granted during the year were:  
General Sir Colin Campbell, G.C.B. (now Lord Clyde),  
Commander-in-Chief in India, as a special mark of the  
high sense entertained of his services in planning and  
conducting the several brilliant and military operations  
which, under the blessing of Divine Providence, re-  
sulted in the rescue of the garrison of the Residency  
at Lucknow and the restoration of the British supre-  
macy in that capital and in Oude ... ... £ 2,000

Major General Sir James Outram, Bart., G.C.B., in con-  
sideration of the high sense entertained of his services  
in the course of his long and brilliant career, and more  
particularly those connected with the defence and  
final conquest of Lucknow, and with the view of ena-  
bling him to maintain the dignity of a baronet, which  
Her Majesty has been graciously pleased to confer up-  
on him, granted an annuity, and with continuance to  
his eldest son ... ... ... 1,000

Sir John Mair Lawrence, Bart., G.C.B., Chief Commis-  
sioner for the affairs of the Punjab, in testimony of  
the high sense entertained by the East India Company  
of his public character and conduct throughout a long  
and distinguished career ... ... ... 2,000

Sir William Yardley Knight, pension granted by Her  
Majesty on his retirement from office as Chief Justice  
of the Supreme Court of Judicature at Bombay, Act  
6 Geo. 4, c. 85 ... ... ... 1,600

Mr. William Leach, Assistant Secretary to the Com-  
missioners for the Affairs of India, granted under Her  
Majesty's warrant (53 Geo. 3, c. 155, s. 91), on his  
retirement from that office ... ... ... 1,305

The total amount of special pecuniary grants during the year  
to the widows and families of officers killed in action, and to  
discharged Sergeants, including the above, was £15,360-11-11.

**HOME ACCOUNTS OF THE GOVERNMENT OF  
INDIA. (*Estimated.*)  
FOR 1858-59 and 1859-60.  
*Parliamentary Papers.***

**I.—1858-59.**

The RECEIPTS of the Home Treasury of the Government of India for 1858-59, of which the last 3 months are estimated, were ...	£11,667,020
Balance of Cash, 1st May, 1858, ...	2,752,700

14,419,720

The DISBURSEMENTS for 1858-59, of which the last 3 months are estimated, were ...	£14,678,806
Cash deficient 30th April, 1859, ...	259,086

**II.—1859-60.**

As the receipts from the several Railway and other guaranteed Companies were expected to equal the payments to be made to them, the amounts are not given in the estimate.

The estimated RECEIPTS are ...	£1,694,900
The estimated DISBURSEMENTS, including the estimated deficit of the previous year, are ...	7,410,766

Estimated deficit on 30th April, 1860, ... 5,715,866

The amount of the GUARANTEE FUND of the East India Company in March 1859 in consolidated 3 per cent. annuities and reduced 3 per cent. annuities, was £4,917,035, which cost £4,496,863. In 1859, when the Fund shall become applicable to the redemption of the capital stock of the Company, on the assumption that during the remainder of the Period for which such Fund is to accumulate, the Average Price of the Public Stocks will be the same as that which has prevailed since the same was first created, the amount will be £13,052,529 at a cost of £11,935,863.

THE AMOUNT of INTEREST payable in <i>England</i> on Debt incurred since 1st May 1857 is ...	£457,664
THE AMOUNT of INTEREST payable in <i>India</i> on Debt incurred there since the 1st May 1857, deducting therefrom the Interest of 4 per Cent. Stock subscribed to the Loan, and cancelled, is ...	527,257

The BALANCE in the <i>Home Treasury</i> on the 1st March 1859, including investments of Cash in Government Securities, and exclud- ing the net amount of Deposits (partly esti- mated) on account of Public Works guaran- teed, was ... ... ...	£1,101,361
The BALANCES in the <i>Indian Treasuries</i> on 1st May 1858 counting the Rupee at 2s., were ...	14,404,964

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## CANAL CONSERVANCY IN HYDRABAD.

FOR 1857-58.

*Bombay Records, No. L. New Series.*

This is the fourth annual report which has been issued by Mr. Beatty, C. E., the Assistant Collector for canals in the Hydrabad Collectorate. He gives a description of the general system pursued in the conservancy department.

The sanctioned permanent establishment consists of one assistant collector, five canal surveyors, four apprentices, five suzawalkars, one writer, four moonshees, and six tindals. In the cold season a temporary establishment of from 8 to 9 suzawalkars on Rs. 30 a month, a large number of maistrees, and a few extra moonshees, is maintained. One moonshee is attached to each kardar, and takes copies of the measurements by the canal surveyors and suzawalkars. There are 5 divisions in the collectorate, four of which are under the immediate superintendence of European canal surveyors. They proceed to their districts about 1st November. But it is difficult to procure experienced men. To remedy this, the salaries should be raised from Rs. 150 to 200 a month with allowances. The canal surveyors measure the main canals, the suzawalkars the minor ones, under their supervision. Each surveyor furnishes to the collector of canals and to the Deputy Collector of the district a digest and progress report weekly. In addition to these duties, the canal surveyors are bound to superintend all works connected with canal clearances, formation and repairing of bunds, and building of sluices, &c.; and also to see that the sum sanctioned for each work is expended in the most judicious manner. All irrigational works are performed by contract. The contracts are issued by the Deputy Collectors; and to them the contractors are responsible. Thus all possible measures are taken to prevent fraud and peculation.

During the year the 4 European surveyors made surveys of the latter portion of the Gaja, and a longitudinal section of the Shahwah Mugrubi; the length of which is 19.41 miles, the Gulloowah, and two of its branches; and also a portion of the Gulloo. The quantity far exceeded that done during the former season; and considerably more than double that during the first season of the existence of the department. It amounted to 161,363,000 cubic feet; while the total number of men employed only exceeded by about four hundred thousand, the number employed during the first season; showing how much the canal diggers had improved as workmen. The amount paid for labour was Rs. 251,993, the cost per 1,000 cubic feet was Rs. 1.9, or 11 annas more than in 1854-55 and 2 annas 9 pic more than in the previous year; and the proportion of charge due to superintendence was 14.09, while in the previous year it was 16.79. The total number of canals cleared was 342, out of 419 on the present Government list; and the total number of miles cleared, 1,220, out of a total length of 2,913.

The principal works executed were;—the new mouth (nearly two miles in length), which was cut to the Dadwah; the improvements at the mouth of the Phoolalee; and the thorough clearance of the Meerwah and Gharree commenced but not half completed. The last is described as a work extending over a distance of about 40 miles. The clearance saved from total destruction, the whole of the cultivation on the Meerwah, which would otherwise have been swamped. The water in the Gharree reached land dry for a century. A work was completed on the Surfrazwah also, with a view to the restoration of the canal.

Tabular statements are given to shew the remunerative character of canal clearances. In the 3d season from the establishment of the department, the revenue was increased by Rs. 1,75,000. Though the canal expenditure also increased, there was a clear increase in the 3d season over the 1st, of nearly Rs. 44,000. The general results of the department since its organization are thus enumerated. A map of the canals has been produced and a large amount of statistical information collected. The canal diggers, as a body, are so much improved, that on an average each labourer now performs daily about one-third more work than they had been in the habit of doing formerly; or, in other words, two men now do the same amount of work that required three men to do four years ago. Some of the principal canals, which either had fallen, or were falling, into a state of ruin, have not only been completely restored, but, in some instances, the revenue derived has been increas-

ed manifold in excess of what it was ever known to be. The condition of the canal digger has been so much improved, that he is now in a position to earn from two to four annas per diem in place of five pies as formerly. The actual quantity of work done in canal clearances is fully *double* that performed during seasons prior to the introduction of the present system. The general condition of the canals has been, and is being, year by year, greatly improved. And, finally, the revenue of lands watered by canals, has been increased one and three quarters lacs of Rupees.

#### EXTERNAL COMMERCE OF MADRAS.

FOR 1858-59.

The total trade of Madras, by sea, in the official year 1858-59, reached the value of Rs. 8,48,49,334. In 1857-58 it was Rs. 9,62,84,797, shewing a *decrease* for the year under report of Rs. 1,14,35,463. As the report consists merely of a series of tabular statements, no reason for the decrease is assigned. The following comparative statement shews the details :—

### **Comparative Statement of External Commerce by Settlements and Countries**

105 ]

Private Trade.		On account of Government					
		General Trade.		Total.		Stores, &c.	Treasure.
MERCHANT- dize.	Treasure.	Co.'s Rs.	Co.'s Rs.	Co.'s Rs.	Co.'s Rs.	Co.'s Rs.	Co.'s Rs.
Imports	... 2,22,88,165	1,88,32,162	4,09,11,327	23,97,988	...	23,97,988	4,32,06,615
Exports	... 4,01,10,985	91,39,936	4,92,40,931	2,54,166	25,70,930	25,25,006	5,20,68,007
Re-Exports	... 9,10,155	...	9,10,155	...	...	...	9,16,155
	Total	6,33,08,315	9,77,53,006	9,10,62,413	26,51,454	26,70,930	9,59,284
1856-57.	1856-57.	...	...	...	...	...	...
Imports	... 2,69,71,811	1,39,92,897	4,08,54,708	23,26,597	3,03,310	26,29,907	4,36,04,016
Exports	... 3,36,99,791	56,61,731	3,92,61,593	1,00,016	66,805	1,00,821	3,96,39,943
Re-Exports	... 17,16,376	...	17,16,376	...	...	...	17,16,376
	Total	6,23,87,978	1,96,54,626	6,50,49,906	24,36,613	3,76,115	9,62,375
		9,31,537	80,98,476	90,19,967	21,14,841	21,00,815	9,62,375
		...	...	...	...	...	Decrease

From this it is evident that the decrease is chiefly in the imports and exports on account of Government; and, in the Private Trade, chiefly in Treasure. The actual decrease in merchandise is Rs. 9,21,337.

Trade with the UNITED KINGDOM.

Imports	...	...	...	Rs. 1,80,42,868
Exports	...	...	...	2,08,361

Of the <i>Imports</i> the chief items were the following :—				
Gold and Silver Lace and Thread	...	...	...	1,91,686
Millinery	...	...	...	8,65,705
Wearing Apparel	...	...	...	1,56,574
Do. Military	...	...	...	3,32,245
Books and Stationery.	Books—British	...	...	1,21,156
	Do. Foreign	...	...	327
	Prints and Engravings	...	...	3,278
	Stationery	...	...	2,08,272
	Twist and Yarn—British	...	...	23,36,728
Cotton Goods.	Do. Foreign	...	...	2,078
	Thread	...	...	22,674
	Piece Goods—Dyed	...	...	1,59,282
	Do. Printed	...	...	5,19,766
	Do. Plain	...	...	11,04,520
Glassware.	Bottles	...	...	3,406
	Other Sorts	...	...	1,00,498
Jewellery.	Clocks and Watches	...	...	39,619
	Coral	...	...	1,83,150
	Other Sorts	•	...	60,702
Machinery	...	...	...	1,36,831
Malt Liquors	...	...	...	4,81,914
Do. on Government Account	...	...	...	55,460
Manufactured Metals.	Hardware	...	...	1,65,484
	Silver Plate	...	...	10,956
	Types—Printing	...	...	20,755

			Rs.	
Metals.	Copper.	Bolt and Ingots	43,904	
		Sheet ...	1,80,227	
		Sheathing ...	20,237	
		Slabs and Tiles ...	4,917	
		Bar and Bolt ...	3,85,236	
		Hoop ...	17,054	
		Nails ...	8,032	
		Rails ...	1,52,014	
		Rod ...	16,429	
		Sheet ...	31,022	
Metals.	Iron.	Screws ...	5,523	
		Sweedish ...	6,089	
		Wire ...	31,808	
		Steel ...	75,262	
		Spelter ...	27,070	
		Tin Plates ...	5,806	
		Lead Pig ...	9,201	
		do. Sheet ...	4,621	
		Brass Sheet ...	6,764	
		do. Wire ...	18,436	
Oilman's Stores	Oilman's Stores	Yellow Metal ...	7,770	
		Do. Sheathing ...	7,905	
		Quicksilver ...	1,380	
		Other Sorts ...	1,23,941	
			11,878	
			1,250	
		Do. Chemicals ...	4,951	
		Pictures and Portraits ...	7,09,960	
		Railway Materials ...	53,300	
		Saddlery ...	1,642	
Spirits.	Spirits.	Shoe Blacking ...	12,041	
		Soap ...	2,616	
		Spectacles ...	1,46,740	
		Brandy ...	73,386	
		Gin ...	1,193	
		Rum ...	8,028	
		Whiskey ...	10,733	
		Other Sorts ...	865	
			4,460	
			1,415	
Toys.	Tobacco.	Manufactured ...	19,490	
		Unmanufactured ...	5,773	
		Trunks and Boxes ...	5,853	
		Umbrellas ...	13,864	
Wax and Wax Candles				

			Rs.	3,158
	Cape	...	...	77,228
	Champaigne	...	...	14,355
	Claret—English	...	...	1,146
	Do. French	...	...	20,628
	Ginger	...	...	4,459
	Hock	...	...	1,510
	Lisbon	...	...	16,450
	Madeira	...	...	1,938
	Marscella	...	...	7,938
	Moselle	...	...	1,67,431
	Port	...	...	2,67,254
	Sherry	...	...	18,568
	Other Sorts	...	...	1,245
Wines.	Wool	...	...	4,159
	Worsted Yarn	...	...	16,102
		Alpaca	...	...
		Army Cloth	...	15,257
		Blankets	...	6,488
		Blue Cloth	...	36,377
		Broad Cloth	...	6,704
		Bunting	...	6,241
		Carpets	...	3,019
		Carriage Cloth	...	2,471
		Circassian Cloth	...	552
		Coburg	...	..
		Crimson Cloth	...	10,096
Woollens.		Doe Skins	...	900
		Filter Cloth	...	56,314
		Flannel	...	1,901
		Gambroons	...	1,319
		Medium Cloth	...	1,368
		Merino	...	2,800
		Orleans	...	15,188
		Scarlet Cloth	...	3,414
		Serge	...	9,848
		Shawls	...	9,696
		Tweeds	...	29,781
Sundries		Other Sorts	...	91,870
Treasure.	{ Gold	...	...	5,89,930
	{ Silver	...	...	47,30,537

Of the *Exports* the chief items were the following :

Coffee	...	...	...	3,37,018
Cotton Wool	...	...	...	9,06,942
Drugs. { Myrabolanes	...	...	...	4,637

Senna	...	...	...	42,134
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Dyes.	{ Catechu or Terrajaponica	...	... Rs. 2,500
	Indigo ...	...	... 32,68,615
	Turmeric ...	...	... 12,159
Grain.	Rice ...	...	... 2,24,120
	{ Wheat ...	...	... 10
Hides.	{ Tanned ...	...	... 7,29,683
	Untanned ...	...	... 2,33,944
Horns	...	...	... 49,293
Ivory and Elephant's Teeth	...	...	... 336
Ivory Work Boxes	...	...	... 3,116
Oils.	{ Castor ...	...	... ...
	Cocoanut ...	...	... 3,38,932
	Fish ...	...	... 98,797
	Gingely ...	...	... 10
	Linseed ...	...	... ...
	Manilla ...	...	... 31,545
	Pinnay ...	...	... ...
	Other Sorts ...	...	... 534
Precious Stones.	{ Diamonds ...	...	... 63,430
	Garnets ...	...	... 1,056
	Rubies ...	...	... 31,085
	Other Sorts ...	...	... 700
Saltpetre	...	...	... 88,595
	Agsch ...	...	... ...
	Cortandeu ...	...	... ...
	Gingely ...	...	... 1,61,162
	Lunseed ...	...	... 15,114
Seeds.	Manilla ...	...	... 50,646
	Mustard ...	...	... 36,682
	Poppy Seed ...	...	... ...
	Rape ...	...	... ...
	Valasaloo ...	...	... 11,884
	Other Sorts ...	...	... 214
Sugar	...	...	... 21,11,870
Tobacco.	{ Manufactured ...	...	... 1,058
	Unmanufactured ...	...	... 6,473
Toys	...	...	... 3,001
Wax and Wax Candles	...	...	... 60,742

## Trade with AMERICA.

Imports	...	...	Rs. 2,28,410
Exports	...	...	... 7,025

The import trade shows an increase over the previous year of Rs 1,29,560.

The chief imports were.—

Horses	...	...	... Rs. 54,000
Piece Goods	...	...	... 44,333
Ice	...	...	... 50,000
Clocks and Watches	...	...	... 6,780

Timber	...	...	...	Rs. 14,681
Raw Tobacco	...	...	...	13,090

The only *exports* were :—

Coir and Coir Rope	...	...	...	5,989
Sundries	...	...	...	1,436
The Export Trade shews a decrease, in Sugar, of	...	...	...	46,066

#### Trade with ARABIAN GULF.

Imports	...	...	...	Rs. 1,28,701
Exports	...	...	...	7,85,452
Re-Exports	...	...	...	796

The chief *Imports* were dates, the chief *Exports* Coffee, Rice, Spices, Timber, and Dyes.

#### Trade with CEYLON.

Imports	...	...	...	48,84,936
Exports	...	...	...	56,29,129
Re-Exports	...	...	...	96,731

The chief *Imports* were :—

Cotton Goods.	Twist and Yarn—British Do. Thread	...	...	1,73,980
		...	...	5,605
Fruits & Nuts.	Piece Goods—Dyed Do. Printed Do. Plain	...	...	5,291
		...	...	2,433
Cocoanuts	Betel Nut—Boiled Do. Raw	...	...	6,62,054
		...	...	16,957
Military Stores—On Government account	...	...	...	2,12,058
	Precious Stones—Pearls	...	...	13,794
Timber and Planks	...	...	...	51,130
	Do. Kernels	...	...	3,33,813
Precious Stones—Pearls	...	...	...	5,625
	Timber and Planks	...	...	1,78,797

The chief *Exports* were :—

Bones	...	...	...	10,103
Cattle.	Bullocks	...	...	67,104
	Horses	...	...	7,149
Coffee	Sheep	...	...	48,312
	...	...	...	6,106
Cotton Wool	...	...	...	2,28,872
Grain.	Dholl	...	...	11,559
	Horse Gram	...	...	33,773
	Menoomooloo	...	...	6,622
	Paddy	...	...	2,95,023
	Pease	...	...	20,237
	Peassaloo	...	...	26,067
	Rice	...	...	22,72,059
	Sanagaloo	...	...	35,823
Wheat	Wheat	...	...	1,09,668
	Other Sorts	...	...	3,968

Gunnies and Gunny Bags	...	Rs.	5,707
Spices. { Chillies	...	...	57,529
Ginger	...	...	2,157
Pepper	...	...	13,842
Sugar	"	...	10,019
Tobacco. { Manufactured	...	...	1,856
Unmanufactured	...	...	3,102

## Trade with CHINA.

Imports	...	Rs.	1,33,056
Exports	...	...	5,26,366
The <i>Imports</i> were :—			
Porcelain and Earthenware	...	...	5,895
Confectionery	...	...	6,091
Tea	...	...	1,00,938
Sundries	...	...	20,132
The <i>Exports</i> were :—			
Cotton Wool	...	...	5,03,496
Rice	...	...	22,300

## Trade with FRANCE.

Imports	...	Rs.	7,27,952
Exports	...	...	21,91,060
Re-Exports	...	...	9,877
The chief <i>Imports</i> were :			
Books and Stationery	...	...	1,15,131
Corks	...	...	15,031
Perfumery. { Eau-de-Cologne	...	...	3,054
{ Lavender	...	...	2,117
Spirits. Brandy	...	...	2,96,450
{ Champagne	...	...	16,796
Wines. { Cherry Brandy	...	...	50,475
{ Claret French	...	...	4,831
{ Other Sorts	...	...	
Treasure - Silver	...	...	1,21,065
The chief <i>Exports</i> were :			
Coffee	...	...	1,93,375
Cotton - Wool	...	...	3,34,110
Dyes. { Indigo	...	...	2,73,326
{ Turmeric	...	...	609
Grain. { Rice	...	...	1,31,644
{ Sanagaloo	...	...	
Hides. { Tanned	...	...	12,016
{ Untanned	...	...	22,740
Precious Stones Carbuncle	...	...	10,000
Saltpetre	...	...	32,461
Seed—Gingely Oil	...	...	14,17,556

Trade with MALDIVES	...	Rs.	12,918
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Trade with LACONIDIENES		Rs. 62,434																		
MACEDONIA																				
Imports	Rs. 2,95,006																			
Exports	5,75,000																			
Re-Exports	46,054	Rs. 11,69,280																		
Trade with NEW SOUTH WALES.																				
Imports	1,91,840																			
Exports	58,072	340,512																		
The chief Imports were Horses		1,86,000																		
Trade with PENANG, SINGAPORE AND MALACCA.																				
Imports	11,50,968																			
Exports	6,20,881																			
Re-Exports	35,339	18,06,988																		
Trade with PERSIAN GULF.																				
Imports (chiefly horses)	3,58,658																			
Exports (chiefly Rice and Coffee)	1,64,264	5,22,922																		
Trade with SUMATRA	... ...	Rs. 25,096																		
TURKEY	...	4,05,818																		
ARACAN	...	3,40,356																		
BALASORE (Imports only)	...	62,989																		
BASSEIN	...	66,581																		
BOMBAY.																				
Imports	1,08,48,988																			
Exports	80,53,184																			
Re-Exports	2,81,583	1,86,92,660																		
The chief Imports were :—																				
Cotton-Goods.	<table border="1"> <tr> <td>Twist and Yarn—British</td> <td>... ...</td> <td>2,70,214</td> </tr> <tr> <td>Do. Foreign</td> <td>... ...</td> <td>5,173</td> </tr> <tr> <td>Thread</td> <td>... ...</td> <td>4,268</td> </tr> <tr> <td>Piece Goods—Dyed</td> <td>... ...</td> <td>5,14,946</td> </tr> <tr> <td>Do. Printed</td> <td>... ...</td> <td>42,588</td> </tr> <tr> <td>Do. Plain</td> <td>... ...</td> <td>9,59,066</td> </tr> </table>	Twist and Yarn—British	... ...	2,70,214	Do. Foreign	... ...	5,173	Thread	... ...	4,268	Piece Goods—Dyed	... ...	5,14,946	Do. Printed	... ...	42,588	Do. Plain	... ...	9,59,066	
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Grain.	<table border="1"> <tr> <td>Paddy</td> <td>... ...</td> <td>2,43,659</td> </tr> <tr> <td>Rice</td> <td>... ...</td> <td>9,444</td> </tr> <tr> <td>Wheat</td> <td>... ...</td> <td>16,940</td> </tr> </table>	Paddy	... ...	2,43,659	Rice	... ...	9,444	Wheat	... ...	16,940										
Paddy	... ...	2,43,659																		
Rice	... ...	9,444																		
Wheat	... ...	16,940																		
Gunnies and Gunny Bags	... ...	1,23,974																		
Metal.	<table border="1"> <tr> <td>Sheet Copper</td> <td>... ...</td> <td>8,88,400</td> </tr> <tr> <td>China Cash</td> <td>... ...</td> <td>35,950</td> </tr> </table>	Sheet Copper	... ...	8,88,400	China Cash	... ...	35,950													
Sheet Copper	... ...	8,88,400																		
China Cash	... ...	35,950																		
Salt.	<table border="1"> <tr> <td>On Government Account</td> <td>... ...</td> <td>2,83,068</td> </tr> <tr> <td>On Private do.</td> <td>... ...</td> <td>141</td> </tr> </table>	On Government Account	... ...	2,83,068	On Private do.	... ...	141													
On Government Account	... ...	2,83,068																		
On Private do.	... ...	141																		
Commodities.	<table border="1"> <tr> <td>Gold</td> <td>... ...</td> <td>2,25,251</td> </tr> <tr> <td>Silver</td> <td>... ...</td> <td>41,74,974</td> </tr> </table>	Gold	... ...	2,25,251	Silver	... ...	41,74,974													
Gold	... ...	2,25,251																		
Silver	... ...	41,74,974																		
The chief Exports were :—																				
Cotton, Wool	... ...	80,86,987																		

Fruits and Nuts.	{ Betel Nut—Boiled	...	...	Rs. 1,75,170
	Do. Raw	...	...	... 1,85,621
	Cocoanuts	...	...	... 2,28,563
	Do. Kernels	...	...	... 3,20,976
	Other Sorts	...	...	... 1,656
Rice	...	...	...	... 1,69,219
Iron Pig	...	...	...	... 36,378
Coir and Coir Rope	...	...	...	... 1,58,695
Precious Stones—Pearls	...	...	...	... 75,300
Seeds.	{ Agseh	...	...	... 2,65,258
	Croton	...	...	... 1,484
	Gingely	...	...	... 13,478
Spices.	{ Cardamums	...	...	... 2,93,498
	Pepper	...	...	... 5,12,588
Timber and Planks.	{ Poon	...	...	... 16,928
	Teak—On Govt. Account	...	...	... 26,016
	(Do. On Private do.)	...	...	... 1,84,653
Woods.	{ Jungle	...	...	... 1,56,155
	Sandal	...	...	... 1,47,513

## Trade with CALCUTTA.

Imports	...	...	37,37,324
Exports	...	...	68,42,342
Re-Exports	...	...	7,27,673
		—	1,13,07,339

The chief *Imports* were :—

Cotton Goods.	{ Twist and Yarn—British	...	...	5,77,965
	Thread	...	...	3,081
	Piece Goods—Dyed	...	...	57,334
	Do. Printed	...	...	2,111
	Do. Plain	...	...	2,12,052
Cow Tails	...	...	...	34,935
Rice	...	...	...	374,259
Gunnies and Gunny Bags	...	...	...	3,40,639
Precious Stones.	{ Diamonds	...	...	10,300
	Pearls	...	...	2,000
	Rubics	...	...	58,050
	Other Sorts	...	...	1,550
Silk.	{ Raw—British	...	...	5,08,705
	Thread	...	...	23,500
Treasure.	{ Gold	...	...	3,48,106
	Silver	...	...	1,80,905

The chief *Exports* were :—

Chanks	...	...	...	...	1,31,010
Coffee	...	...	...	...	82,171
Cotton Wool	...	...	...	...	10,13,584

Cotton Goods.	{	Piece Goods—Dyed	...	...	Rs. 18,020
Do.		Plain	...	...	4,20,552
Do.		Printed	...	...	2,000
Hides.	{	Tanned	...	...	23,436
Untanned		...	...	...	4,54,422
Salt.	{	On Government Account	...	...	6,113
On Private do.		...	...	...	87,064
Saltpetre	...	...	...	...	779
Seeds.	{	Indigo Seeds	...	...	25,786
Lamp Oil		...	...	...	2,47,233
Pepper	...	...	...	...	2,77,931
Tobacco.	{	Manufactured	...	...	20,702
Unmanufactured		...	...	...	21,715
Treasure—Silver	...	...	...	...	35,86,050

The rest of the Trade was with

Concan	...	...	...	Rs. 6,13,408
Cutch	...	...	...	4,18,310
Goa	...	...	...	1,92,475

#### Indian French Ports

Imports	5,11,355	
Exports	7,45,841	
Re-Exports	1,43,861	
		14,01,000
Moulmein	...	...
		9,95,572
Rangoon		
Imports...	3,27,765	
Exports ...	3,02,527	
Re-Exports	1,19,523	
		7,49,815
Sind	...	...
		3,92,666
Travancore	...	...
		6,52,038

The following shews the value of Imports and Exports by Sea into each Zillah.

	<i>Imports.</i>	<i>Exports.</i>	<i>Re-Exports.</i>
Ganjam	...	1,13,916	9,02,892
Vizagapatam	...	4,88,522	27,26,380
Rajamundry	...	5,47,698	23,76,631
Masulipatam	...	1,82,670	2,32,294
Guntoor	...	.....	31,605
Nellore (Treasure)	...	495	92,977
Fort St. George	2,72,34,021	1,58,35,040	12,77,336
South Arcot	1,81,893	5,31,633	500
Tanjore	19,65,582	22,69,710	16,121
Madura	1,65,353	3,98,619	19,188
Tinnevelly	10,85,650	24,48,579	98,822
Malabar	59,21,229	52,02,766	2,74,927
Canara	56,96,936	64,79,197	1,381

The following shews the ships and tonnage which arrived at the Madras ports from ports not subject to the Madras Presidency and which departed from the Madras ports to external ports :—

		Arrivals.	Tonnage.	Departures.	Tonnage.
Ganjam	...	39	10,530	79	30,493
Vizagapatam	...	34	11,452	108	39,157
Rajahmundry	...	127	36,806	222	68,650
Masulipatam	...	14	2,170	30	6,580
Nellore	...	31	3,777	43	5,471
Fort St. George	...	644	2,59,560	549	2,30,194
South Arcot	...	131	11,380	139	14,977
Tanjore	...	400	47,101	518	58,812
Madura,	...	819	32,177	1,077	40,163
Tinnevelly	...	476	36,985	464	36,325
Malabar	...	2,102	1,50,393	2,167	1,49,678
Canara	...	1,701	59,261	1,901	72,396

The total amounted to

Arrivals	...	6,518	Tonnage	...	6,61,532
Departures	...	7,330	"	...	7,52,896

Of the Arrivals 103 were steamers under British colours, 1,411 ships under British colours, 150 under French, 7 under American, 7 under Arab, 3 under Dutch, 6 under Hamburg and 1 under Swedish, or 1,688 square rigged in all. There were 4,830 native craft, of which 3,637 were under British colours, 161 under Arab, 70 under Cutch, 2 under French, 201 under Portuguese, and 759 under native colours.

Of the Departures 111 were British steamers, 1,558 ships under British, 198 under French, 8 under American, 11 under Arab, 1 under Bremen, 2 under Danish, 6 under Dutch, 3 under Hamburg, 1 under Norwegian, 2 under Belgium, 1 under Portuguese, 1 under Sardinian, and 1 under Swedish colours, or 1,904 square rigged. Of the 5,420 native craft, 3,775 were under British, 168 under Arab, 144 under Cutch, 3 under French, 224 under Portuguese, and 1,112 under native colours.

Recd. on... 11.3.73  
 R. R. No. 6144  
 G. R. No. 23691



954/ANN/R/2



